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BUSINESS WEEK

MAY 8 1942

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New hands — and new problems — for management as the nation's women join the war production line.

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One run can win a ball game— *One shell can win a battle*

*E*xperts say battles are decided by small margins—by which side has the slight extra edge of the one more shell when it's needed, the one added plane or tank, ship or gun. *When it's needed.* The battle in the South Pacific today can't be won with the shell that's going to be finished tomorrow.

America has lost too many battles in this war — always because that extra piece of equipment was still on somebody's machine here . . . *your* machine? Fighting men know the whole war can be lost that same way.

Next time you're tempted to take it easy, to knock off a few minutes early, stop and think—that part or piece you could have made is going to be late—late enough to lose a battle and waste American lives.



**YOU CAN DO IT FASTER, BETTER, FOR LESS..
WITH A WARNER & SWASEY**

WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Materials Squeeze

William L. Batt's retirement from the directorship of the War Production Board's Raw Materials Division is another sign of that "second great crisis" in munitions production signaled in these pages last February—"the discovery that the supply of materials and men sets definite limits to our production, even of arms" (BW—Feb. 2'42, p5).

More significant than his retirement from this job is the fact that he is to concentrate on his work as chairman of WPB's Requirements Committee and as American representative on several United Nations raw materials boards.

These are agencies concerned with the task of divvying up the limited supply of materials and the immediate emphasis must now be put on that rather than on increasing the supply. This fact stands out above all the talk of New Dealers who may now have their way in trying extreme methods of squeezing out more raw materials, and above charges that hard-working Bill Batt failed to raise his staff from the old OPM to the new WPB level of thinking and action.

• **Plant Jam**—WPB's Raw Materials Division is now re-examining the question of how far materials now short can be diverted to the production of more materials—for instance how much steel can be diverted to building new steel mills. All proposed plants which have not yet received project ratings are being held up pending completion of this study, and plants already rated are being denied higher ratings.

No More Babies

If you have a baby as a result of Business Week's Apr. 11 assurance that any child is recognized by the draft as a dependent, we're sorry. The Selective Service has changed its mind.

New policy is not to recognize as a dependent a child resulting from a marriage contracted (1) after Dec. 8, 1941, or (2) before Dec. 8 but at a time when the father had reason to believe his induction was imminent.

New Labor Arbitrator

Paul McNutt's new War Manpower Commission is supposed to confine itself to labor supply questions, leaving labor relations to the National War Labor Board. But there are signs that, at the local level, WMC can't keep its hands off. Employers are now being encour-

aged to draw their men from the United States Employment Service, one of McNutt's units; this may soon be compulsory.

• **Into Union Contracts**—In requisitioning men from USES, employers can specify union members if they are operating union shops. This puts the Employment Service in constant contact with the unions—and here's something to watch. In several areas, arrangements have evolved which amount to contracts on wages and working conditions, setting the terms which employers must meet to get union men from USES. Moreover, when men furnished by USES get into a dispute, the Service feels an inclination to straighten it out.

• **Trend**—Put all this together and you have got another example of the government's recent tendency—as in the shipbuilding and construction stabilization schemes—to inject itself into collective bargaining as a virtual participant.

Postwar Autos

Auto Rationer Rolf Nugent has met a cool reception for his personal and unofficial proposal that auto dealers start collecting payments now on new automobiles to be delivered after the war—with such purchasers getting first call on the first cars produced.

Auto dealers doubt they could sell cars on any such vague scheme, especially with the horrible example of Germany's Volkswagen fiasco (a similar plan for prepayment on promised cars). Manufacturers shuddered at the spot such a scheme would put them in if delivery day arrived in the middle of an inflation.

• **A Bond Angle**—But the suggestion did produce an alternative proposal: With the public crazy to buy leftover jeeps after the war, why not stimulate bond sales with an announcement that such leftovers would be handed over only to redeem war bonds?

Invitation to Trouble

Many insiders at WPB and OPA have their fingers crossed. They fear that the present division of authority between the two agencies will aggravate any disagreement that may arise on policies for controlling the war economy. So far, Nelson and Henderson have seen eye to eye, in the main, but any breach between their organizations probably would render intolerable a set-up in which Henderson derives his power partly from Nelson (on ration-

ing) and partly direct from the White House (on price control).

• **Safety First**—As might be expected under the circumstances, an internal movement is on foot within WPB to absorb OPA. This is plausibly proposed as a means of forestalling any occasion for a break between the two men.

Whether or not such a merger will materialize is purely speculative. It's just something to keep in mind.

"Wage Stabilization"

Net of the wage-stabilization situation today is that F.D.R. has passed the buck and that nobody has it—and that he unquestionably would be pleased if the War Labor Board picked it up and tried to follow the spirit of his oratory since it can't observe the letter of any instructions from him. If he can do that, Chairman Davis is being wasted in a nonpolitical post.

• **Forthright Leon**—Leon Henderson's reaction to the situation can be guessed from the fact that, though he backed down later, presumably under presidential pressure, he did definitely recommend statutory limits on wages before a closed session of the House Ways and Means Committee.

Labor Board Shift

One thing to watch is the effect of the President's anti-inflation program on the thinking of the public members of the War Labor Board. Before the Roosevelt message, they considered their function judicial—to weigh evidence, mete out justice, dispense wage increases on the basis of equity. There's evidence that they are now going to consider themselves instruments for carrying out the anti-inflation program, bulwarks against wage spiraling.

In practical terms, this would mean that they had become administrative rather than judicial agents of the government, committed to opposing wage increases on principle and deviating from that principle only when the exigencies of a case before them made it necessary.

Back to Hillman?

Among the questions left unanswered by the President's "wage indirective" was who can do what about a voluntary wage increase offered by an employer either as a means of labor raiding or to stave off demands for the closed shop or union protection. NWLB has no handle by which to get hold of an increase that isn't part of a labor dispute.



This is no time to ride the
RUTS



Picturesque are the winding roads that follow the old cow paths, but today the good old accepted ways are just not good enough.

You're looking for short cuts not detours, new ideas not backslaps . . . ways to step up production, train green men, make machines produce. These are the

very problems Shell men have already licked for many manufacturers. For example: *In one plant Shell's improved methods of balanced lubrication practically doubled the life of their gear hobs.*

That's the kind of new ideas you're looking for these days! Let's talk it over. Call in the Shell man now!

SHELL

INDUSTRIAL LUBRICANTS



McNutt's War Manpower Commission might find one as part of a labor priority system.

● **Hillman Idea Back?**—Best hope may still lie in Sidney Hillman's old scheme for stabilization through government-conducted collective-bargaining agreements by employers and employees of whole industries. Hillman made these effective in shipbuilding and construction, was stymied in the aircraft industry and never got any further. Look for a new push on this project.

Farm Ambassador

Don't overlook the appointment of an Agricultural Attaché at the British Embassy in Washington.

Creation of the post (brand-new to the British diplomatic service) indicates that our ally is getting set to cooperate importantly in the programs for close postwar collaboration between the world's great exporters and importers of farm products.

It's the postwar angle that makes the appointment of Prof. J. A. Scott-Watson especially significant. One of Britain's outstanding authorities on rural economics, he has studied at Iowa State College, traveled extensively in rural America, and was a friend of "Old Henry" Wallace, father of the Vice-President.

Rubber from Grain

Senator Gillette's vociferous subcommittee on the synthetic rubber program is getting action. Arthur Newhall, WPB's rubber coordinator, has now endorsed its demand for expansion of the program to include production of butadiene from grain alcohol. He's recommending this to Donald Nelson and the RFC.

Meantime, the RFC has tossed the ball to the Union Carbide & Carbon Co., by contracting for 80,000 tons of butadiene from grain alcohol. Union Carbide's process apparently is similar to that submitted several months ago—without result—by Wacław Szukiewicz, a Polish inventor backed by Leon Henderson and the Publicker Commercial Alcohol Co.

Specialists Mark Time

The Army Specialist Corps isn't panning out. Secretary Stimson's proposal for a crew of semi-civilians wearing officers' uniforms but with no definite rank brought in a flood of applications, but Ordnance and other branches were cool.

Idea was to set up a pool of men with administrative and executive experience who would be requisitioned as needed

for housekeeping assignments with the various Army branches.

● **No Demand**—As it turns out, the requisitions aren't coming through. The branches prefer to commission the men they want. They know what a major is and how to treat him, aren't sure about a specialist.

But as the supply of healthy and available men past military age runs out, the corps may assume more importance. It can be used to bring in men barred from commissions by physical or other technical disqualifications.

● **No Youngsters**—Army is standing firm on its rule that no one under 30 may be commissioned except out of the ranks.

Lumber Embargo

Count the 60-day embargo on lumber purchases by distributors as an early effort by WPB to clear the way for a huge buying program by the Army. Sawmills and loggers are getting a call to step up production to the maximum in preparation.

Distributors' stocks are believed sufficient to take care of civilian demand for the two-month period. Army will concentrate its purchases on the mills.

Ship Purge

Look for drastic overhaul of Maritime Commission and War Shipping Administration. Object: Speed and more speed in ship construction.

A worried F.D.R. is considering a reorganization plan drafted in the Budget Bureau. This would combine the WSA and the commission, into a new organization along the lines of the War Production Board. All shipbuilding functions would be placed under a single administrator who would also be chairman of an advisory board. Navy would be given a big voice on this board.

● **Beached**—Admiral Land would be replaced. By whom is the question. Washington corridors echo the names of Joseph Kennedy, Herbert Lehman, Henry Kaiser.

Stamp Plan Strategy

Department of Agriculture is hard put to save the food stamp plan for distributing surplus food to low-income families. When the word "rationing" is on every tongue and relief rolls are rapidly dwindling, it's rather hard to explain that here and there it's still necessary to move seasonable surpluses and that the stamp plan, backed by store-wide promotion, is still an effective means of doing it.

This week the Agricultural Marketing Administration called in producers and

food trade representatives to plug a "food conservation" program intended to make the plan set well with Congress and the public.

Furniture Wanted

There's a chance that the National Housing Agency may have to start buying furniture for its war houses. About 65% of the tenants moving in don't own a stick of furniture. With incomes mostly in the \$1,800–\$2,000 level, they find it tough to buy, particularly since the Federal Reserve started cracking down on time payments.

Most of them would like to rent household goods but the supply available on this basis is obviously limited.

Mining Bloc Hits Back

Pressure of the powerful bloc of Senators from the gold-and-silver mining states of the West has forced the War Production Board to back down on a priority ruling.

This ruling held that no mine producing more than 30%, dollar value, of the precious metals could call for blanket priority assistance. Mines whose copper, lead, and zinc byproducts didn't add up to 70% of the value of their gold and silver feared forced shut-downs, raised a clamor.

● **Surrender**—WPB first granted exceptions for mines whose base-metal output was large enough to be important. The clamor continued, and now WPB is letting the gold and silver boys back in.

Better, But Not Perfect

Take a grain of salt with the sugar coming in from Hawaii. It's heartening to hear that the island shipped 108,066 tons of raw sugar to the United States in April, topping the 90,536 for the entire preceding three months. But Hawaii's normal shipments to the mainland run from 900,000 to 1,000,000 tons a year, can hardly be expected to top these figures even if the April rate is maintained.

And even 1,000,000 tons wouldn't make up the deficit of nearly a million tons ordinarily received from the Philippines, or provide anything extra for our allies who can no longer get their customary supplies from the Far East.

Frozen Seamen

One place where wage stabilization is working is on the sea. Wages and working conditions for practically the entire American merchant marine are frozen by an agreement between the War Shipping Administration and the

Simplicity



The simplicity of design in Willson Industrial Safety Devices assures definite maintenance economies.

There are over 300 Willson Industrial Goggles and Respirators for every industrial hazard. Consult your local Willson Representative or write direct.



GOGGLES • RESPIRATORS • GAS MASKS • HELMETS

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WASHINGTON BULLETIN (Continued)

A.F.L. and C.I.O. sea-going unions on both coast and the Gulf.

When WSA took over substantially all ships last month on "bare boat" charters, the crews found themselves suddenly government employees, with their former employers merely agents of WSA. Negotiations arrived at an agreement by which the conditions already in effect as a result of collective bargaining "will remain in effect for the duration of the war unless modified by mutual agreement" between WSA and the unions.

Prison Goods for War

Prison-made goods are now legally transportable in interstate commerce if intended for war use of the United States or the United Nations under lend-lease. Restrictions on prison competition with industry imposed by laws passed in 1930, 1934, and 1940 have been circuted by ruling of Attorney General Biddle. This makes available for war work the labor of about 125,000 prisoners and machines worth some \$50,000,000.

Food Control?

Secretary Wickard and his cohorts are confident that the President will set up a War Food Administration in the Department of Agriculture. All F.D.R. has to do is to sign an executive order that has been put on his desk. But that doesn't mean he'll take his pen in hand. He may compromise by appointing a coordinate group representing WPB, OPA, Agriculture, and other agencies which have a finger in the pie.

Moderately Colossal

You can't build a new store without special authorization, says WPB's drastic construction order, but a reasonable facsimile is O.K.

Although Order L-41 exempts commercial structures only if their total cost is under \$5,000, movie producers have been authorized to build sets without limit, provided only that they don't use more than \$5,000 of newly-purchased material per picture.

Strike Report

Current strike figures aren't likely to revive Congress' interest in restrictive labor legislation. Man-days lost in war industries in April strikes totaled 173,500. That's 6,200 over March, but the figure for April, 1941, was 1,031,000.

For the period since the industry-labor no-strike, no-lockout pledge of late December, the War Labor Board esti-

mates that labor disputes have caused a loss of 505,090 man days, less than one-fourth of the strike loss in the same period of 1941.

PRP Simplified

The Production Requirements Plan, closest thing yet devised to actual allocation of materials, this week moved one step closer to the rank of most important instrument in the WPB's priorities system. Latest step involved a further simplification of the applications for a PRP rating.

Applicants now will be required to file considerably less data than heretofore.

Capital Gains (and Losses)

Army and Navy will watch the first night ball game of the season at Shibe Park, Philadelphia, May 22, but it won't be from the grandstand. They will be watching from down Delaware Bay. If the light shows on the skyline, the first night game will be the last.

If Donald Nelson were in a weaker position he might be hurt by congressional attacks on the considerable number of Sears, Roebuck officials in WPB (paralleling the charges of Knudsen days that OPM was General Motors-dominated). But no one seems disposed to make anything of Rep. Chauncey Reed's insinuations that WPB rulings favor mail-order houses at the expense of small retailers.

Public Roads Administration has let the first contract for the permanent Alaska Highway. C. F. Lytle and Green Construction Co., two Iowa firms, will manage construction of a 155-mile section in Alaska proper, overseeing the work done by a multitude of subcontractors. Contracts in the inaccessible Canadian reaches await opening up of that pioneer road on which the Army Engineers are rushing construction.

The Stanley subcontracting scheme now getting its tryout in Chicago is credited with doing a pretty good job of cross-referencing subcontracts with potential subcontractors (BW-May 9 '42, p.22), but some people find its algebraic approach pretty terrifying at first glance. A simpler and quite different method of doing the same job is now getting a quiet test by WPB in the New England area.

Defense Communications Board is in a dither because it wasn't consulted by WPB before the Power Branch adopted its emergency power rationing plan (BW-Apr. 25 '42, p.14). The Board wants preference for broadcasting stations.

—Business Week's
Washington Bureau

FIGURES OF THE WEEK

THE INDEX (see chart below)

PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
Steel Ingot Operations (% of capacity)	99.6	98.6	97.2	96.6	99.2
Automobile Production	21,450	22,015	22,996	93,585	132,380
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$44,228	\$40,840	\$28,299	\$15,104	\$16,406
Electric Power Output (million kilowatt-hours)	3,351	3,305	3,321	3,369	3,004
Crude Oil (daily average, 1,000 bbls.)	3,544	3,335	3,543	4,096	3,756
Bituminous Coal (daily average, 1,000 tons)	1,883	1,916	2,019	1,759	834

TRADE

Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	83	84	86	93	87
All Other Carloadings (daily average, 1,000 cars)	60	59	52	56	45
Check Payments (outside N. Y. City, millions)	\$6,938	\$6,319	\$5,455	\$6,355	\$5,310
Money in Circulation (Wednesday series, millions)	\$11,845	\$11,723	\$11,610	\$10,421	\$9,151
Department Store Sales (change from same week of preceding year)	+8%	+13%	+22%	+18%	+15%
Business Failures (Dun & Bradstreet, number)	216	199	215	196	248

PRICES (Average for the week)

Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	232.1	231.3	233.3	209.6	193.0
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	153.7	153.5	154.2	144.9	138.1
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	186.1	184.2	185.3	160.9	139.8
Finished Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Scrap Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.029¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.17	\$1.15	\$1.16	\$1.14	\$0.91
Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.50¢	3.41¢
Cotton (middling, ten designated markets, lb.)	20.20¢	20.10¢	20.30¢	16.35¢	12.31¢
Wool Tops (New York, lb.)	\$1.270	\$1.266	\$1.302	\$1.280	\$1.323
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	24.65¢

FINANCE

90 Stocks, Price Index (Standard & Poor's Corp.)	62.8	61.5	62.9	75.3	75.6
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	4.26%	4.27%	4.26%	4.26%	4.31%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.37%	2.38%	2.32%	2.20%	#
U. S. Treasury 3-to-5 year Note Yield (taxable)	1.04%	1.02%	0.97%	0.85%	0.73%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	1/8%	1/8%	1/8%	1/8%	1/8-1/4%

BANKING (Millions of dollars)

Demand Deposits Adjusted, reporting member banks	24,854	25,358	24,799	23,876	23,616
Total Loans and Investments, reporting member banks	31,135	31,205	30,883	29,523	27,601
Commercial and Agricultural Loans, reporting member banks	6,649	6,726	6,975	6,573	5,568
Securities Loans, reporting member banks	849	836	849	986	886
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	16,471	16,405	15,776	14,606	14,021
Other Securities Held, reporting member banks	3,656	3,706	3,726	3,679	3,688
Excess Reserves, all member banks (Wednesday series)	2,690	2,820	3,170	3,409	5,711
Total Federal Reserve Credit Outstanding (Wednesday series)	2,572	2,443	2,384	2,247	2,229

* Preliminary, week ended May 9th.

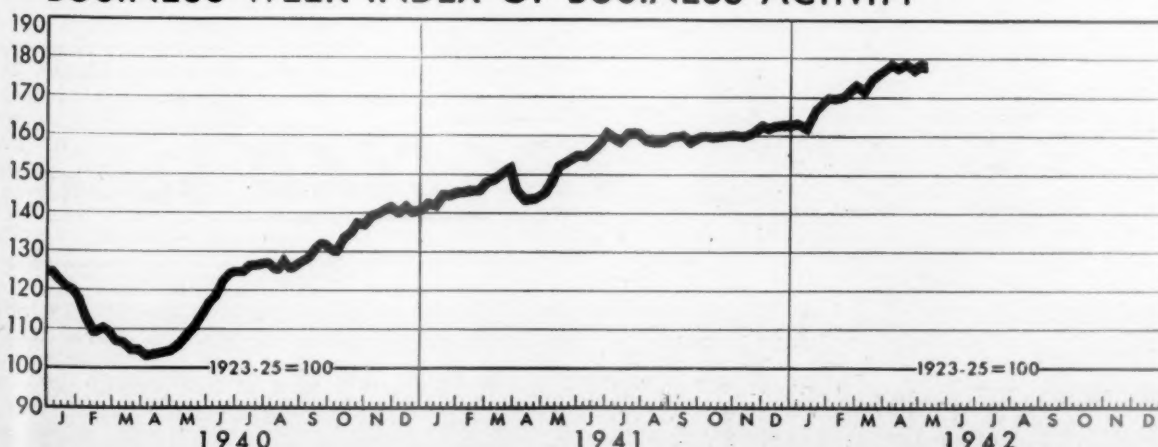
Not available.

† Revised.

§ Date for "Latest Week" on each series on request.

‡ Ceiling fixed by government.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



NEED MOTORS?

4 Things to do

.. TO GET THEM FASTER



1

USE STANDARD MOTORS

Wherever possible, select standard, open, sleeve-bearing motors. Building fewer "specials" means faster and greater production of motors for you and others engaged in essential war work.



2

PLACE ORDERS EARLY

Order the motors when you order, or plan for, the equipment they are to drive. Avoid delay and "mix-ups" by giving complete specifications; i.e., type, horsepower, speed, voltage, phases, frequency, enclosure, mounting, time rating.



3

SEND PROPER PRIORITY

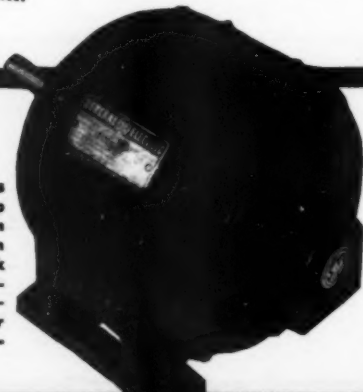
Be sure correct priority papers accompany your order and that the priority rating reflects the urgency of the motor's use in the war effort. The filling of many motor orders is delayed because of incomplete priority information.



4

CHECK G.E. FOR WAREHOUSE STOCKS

A supply of many standard motors is kept on hand to meet urgent war needs. Perhaps the motor you want, or can use with a few simple changes, is available for immediate shipment.



Tri-Clad motors are available up to 100 hp in standard, open construction. Ask your G-E representative for details on other types and ratings.

Your aid on these 4 points will help us to produce and deliver more motors. Your choice of Tri-Clad motors will give you extra protection against (1) physical damage, (2) electrical breakdown, (3) operating wear.

TRI-CLAD MOTORS

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General Electric and its employees are proud of the Navy award of Excellence made to its Erie Works for the manufacture of naval ordnance.

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THE OUTLOOK

Take a Tip from Steel

Supply of this most important of all metals is now 98 $\frac{2}{3}$ % earmarked for war or near-war uses, typifying how armaments clip civilian goods—and retard any over-all rise in business.

For five weeks, business volume—as recorded by the Business Week Index (page 11)—has held on a plateau. Two familiar, but contradictory, influences are at work. The output of armament—airplanes, ships, guns, shells, etc.—is expanding as rapidly as men, materials, and machines can be mobilized. But production of nonwar goods—textiles, shoes, household appliances, business machines, petroleum, jewelry, etc.—is falling off. And that is likely to be the pattern for several weeks longer.

Shipping Space and Shortages

What's happening is this: Lack of shipping space is forcing slowdowns in petroleum output and certain woolen textiles. The War Production Board is trying to speed up conversion of metal-working manufacturers to war work by shutting off supplies or fixing quotas—as with air-conditioning apparatus or typewriters. Furthermore, because of shortages of such basic raw materials as copper, steel, aluminum, and magnesium, curtailment of durable-goods production is unavoidable.

Steel, which in the final analysis determines the country's maximum war potential, exemplifies the point. In the current quarter, "must" steel assignments call for 98 $\frac{2}{3}$ % of maximum output, as follows:

(1) Direct war load—Army, Navy, Maritime Commission, Lend-Lease: 66 $\frac{2}{3}$ %.

(2) Allocations for farm machinery, mining machinery, railroad equipment, and exports: 14%.

(3) For expansion of essential war industries, such as aluminum, rubber, steel, high octane gas: 18%.

For the 1 $\frac{1}{4}$ % of the output that's left, demand—with a priority rating A-10 or higher—is more than ten times supply. That explains why in recent weeks the WPB issued "stop" orders on a long list of steel-consuming products.

Lumber in Demand

The tightness in steel has heightened demand for lumber. WPB has advised plywood manufacturers to expand production. Action has been taken to freeze manufacturer's softwood stocks to assure sufficient supplies for army camps and shipbuilders. And the facilities of furniture factories—as predicted (BW—Apr.

11'42,p32)—are being used increasingly in war work. Government orders on hand are now estimated at \$500,000,000, or approximately half a good year's output. In another year, war output alone may reach \$1,000,000,000.

"Rollback" on Consumers

Officials in the Office of Price Administration this week began to get a sense of the magnitude of the price-freeze job. Institution of manufacturers' and wholesalers' price ceilings took place without incident. But some retailers, trying to beat the May 18 gun on the price markdown to March levels, last week and this week encouraged consumers to stock up on high-quality merchandise. The implication is that

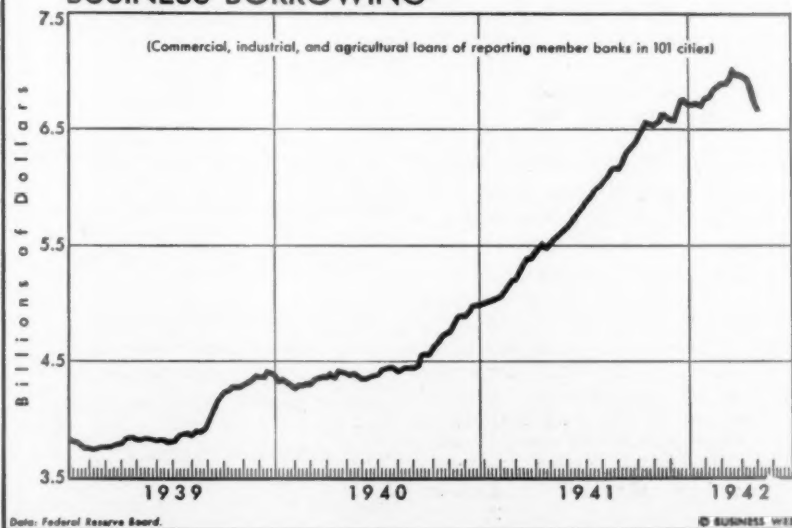
before long pre-freeze quality goods will be generally sold out. Then the fun begins.

So far, economists have talked about a "rollback" to ease the squeeze on retailers by passing some of the burden back to wholesalers and manufacturers (BW—May9'42,p13). But probably the big rollback will be on the consumer, in the form of cheapening of quality. Mrs. Housewife will pay March prices, but she'll get May, June, and July merchandise. Thus, instead of price inflation, we'll have quality deflation. The OPA's next big job is to police quality. To this end, it is apt to press increasingly for merchandise standardization, for standardization is a necessary adjunct to effective quality control.

Long or Short War?

Gasoline rationing along the eastern seaboard is bound to be another headache (page 15). Though consumers get ration cards, gasoline dealers do not have to turn in coupons to replenish their inventories. Therefore, evasive vendors can pick and choose their customers,

IN THE OUTLOOK: BUSINESS BORROWING



Since mid-March, loans of weekly reporting member banks turned down sharply—at the rate of \$55,000,000 a week. The reasons are several. Some retailers and dealers have paid off debt, being unable to replace merchandise (BW—May2'42,p13). The finance companies have less use for bank money. And in many cases manufacturers' inventory loans have naturally closed themselves out. The shortage

of critical materials has forced some industrial plants to stretch their supplies; instead of three or four months' inventories, they've been getting along on as little as two months' or even one month's—that despite increased output. But the picture may change again. Decision of the Army and Navy to charge 2 $\frac{1}{4}$ % on advances to contractors may be a factor in reversing the downturn (page 76).



HIGH-POWER HEADS

New forged cylinder heads for Wright Cyclone aircraft engines promise a 12% to 15% increase in power output without increase in weight, hence higher speeds, altitudes, loads, and

ranges for United Nations planes. Material for such a forging (inset left) is an extruded billet, pressed to shape in dies. Cooling fins are cut on a special milling machine with utmost precision and at speeds "approaching those used in wood working."

ration card or not. In time, the OPA may be forced to adopt a turn-in system, as in the case of sugar, to control the seller.

Meanwhile, the pace of the war—which in the last analysis is the arbiter of what and how much America will produce and for how long—quickened (page 29). The Battle of the Coral Sea signalized a Japanese attempt to cut American communications in the south Pacific. And German thrusts in the Crimea may be the prelude to an invasion of the Caucasus and an attempt to make a junction with Japanese forces, by land, sea, or both, in the Middle East.

It is still well to figure on a long war—one lasting well into 1943 or beyond. But crucial battles are soon to be fought. If the Axis meets with serious and strategic reverses, the war may end sooner than expected. And then, instead of worrying about conversion to war work, business men will have to begin thinking of reconversion to nonwar products. But, as yet, it's too soon and too optimistic to get out the peacetime drawing board.

Networks Feud

Mutual fails to return to fold as broadcasters meet in Cleveland, and association finds new troubles in its own ranks.

Perhaps because the industry is still only 20 years old and hasn't yet quite grown up, life inside the broadcasting business has always been anything but serene. Competitive positions are not yet sufficiently well established so that relationships between high-power and low-power stations, between chain and independent outlets, and between old hands in the game and younger upstarts, can be regarded as stable.

• **A Mutual Estrangement**—At last year's convention of the National Association of Broadcasters in St. Louis a major family quarrel was provoked by the Mutual Network because it had signed a separate peace with the American Society of Composers, Authors and Publishers at a time when the radio industry was

trying to maintain a united front against ASCAP's demand for increased royalty payments on music used by the broadcasters.

At last week's convention in Cleveland it was apparent that that feud was likely to result in a permanent estrangement, despite the fact that the other older and bigger chains—National, Columbia, and the Blue—had in the interim all signed up with ASCAP on substantially the same terms. The N.A.B. met at the Statler Hotel and decided to give NBC, CBS, and the Blue representation on its board of directors; meanwhile Mutual stations held their own meeting at the Cleveland Hotel a quarter of a mile away and decided to stay out of the N.A.B. in order to preserve the independence which, it was argued, the other chains were surrendering by tightening their bonds with the national organization.

• **Trouble Ahead**—Inside the N.A.B., the Mutual affair was almost lost sight of in the welter of other feuds, present and potential. There are tough days ahead for the broadcasting business, as a result of material shortages, decreased labor supply, and the certainty of reduced advertising volume. So far this year, the major chains may still be able to quote an average revenue increase approximating 15% (Mutual boasts better than 100%). Further, there may be a good deal of optimism born of the return to the air of so potent an advertiser as General Motors after an absence of four years, but nobody is kidding himself about the trouble that lies ahead. Before the war is over, there are certain to be some casualties in the ranks—and they won't all be 100-watters.

• **A Fight for Position**—Hence, rumors of the Washington maneuvers being made by the powerful group of 26 clear channel stations, most of them big, 50,000-watt chain outlets, galvanized the slightly smaller regional stations into action. International Radio Network Affiliates, Inc., an organization put together by the regional outlets five years ago but largely inactive since then, may be relied on to carry the fight of these stations to Washington.

YORK PLAN, CONTINUED

Maintenance and repair departments, even in those companies not engaged in war work, can do a lot more than keep their own shops running efficiently.

One of the places where this is being followed up is York, Pa., home of the famous York Plan (BW—Mar. 1 '41, p. 24). Nearly two score plants that normally do not work metals have subcontracts in their repair shops. Result: A cigar company making gages and jigs, a paperboard manufacturer making motor shafts and winch parts, an electric utility turning out tank rings, a garage making ordinance, etc.

War Loads Come First

Rationing of gasoline is merely a mild forerunner of controls over rail and highway transport which will inevitably include priorities on freight space and ratings on passenger travel.

Gas rationing on the Atlantic seaboard is symptomatic of a growing transportation problem. Priorities on freight space, preference ratings to govern passenger travel are definitely coming. How severe will be the restrictions in both categories depends largely on the degree of public cooperation with the present traffic loads of trains, trucks, and buses.

Aside from its relation to this broad problem, the gas rationing is significant principally as taking the joy out of life. The rationing system doesn't interfere seriously with anybody's work or business except, of course, for those whose livelihood is dependent on the rolling tide of highway traffic.

Cooperation Will Help—If the pleasure-driving public accepts the restrictions, the transition to complete elimination of private passenger automobile transportation for millions of people will be less brutal. If any substantial portion of the public takes advantage of the looseness of the temporary rationing system which is to operate from now until July 1, it will only compel more drastic restrictions, hasten the day when motorists may as well sell their cars to the government for junk or into a pool for use by workers in war production.

Used tires will be rationed soon, but a large portion of them are headed toward sale to the government for reclaiming. OPA now is arranging with RFC for purchase of tires, new or used, voluntarily offered by car owners. Defense Supplies Corp. has been given \$150,000,000 to buy tires from owners who will sell voluntarily. If the voluntary plan doesn't get substantial results, extra tires (not counting the spare) will be seized.

Blow for Truck Owners—This will hit truck owners hardest, as many of them stocked up heavily last year in anticipation of price increases. A plan is afoot to require owners to register all their tires at post offices when the new auto tax stickers go on sale next month.

Most owners of cars will be quite willing to part with them before any requisitioning is attempted. Congress may eventually enact legislation specifically authorizing the President to commandeer.

Save Gas and You Save Rubber—Since the crux of the highway transportation problem is rubber, not gas, gas rationing will be extended to the entire country following experience gained with the temporary system in the East. Cutting down on nonessential consumption of

gas will make the rubber last longer, provide more time in which to adjust public passenger-carrying agencies to bear at least a portion of the added load.

Already, the public carriers are hauling 50% more passengers than before Pearl Harbor, according to Joseph B. Eastman, director of the Office of Defense Transportation, whose authority has been extended specifically to cover all rubber-borne transport, private and public.

Scope of Problem—Neither new equipment, of which there will be very little, nor maximum use of the present equipment of railroads and bus lines can lick a situation highlighted by the fact that private automobiles covered in 1941 six times as many passenger miles as the railroads and intercity buses combined.

That means rationing of travel according to more or less arbitrary standards. The Office of Defense Transportation is thinking of defining several classes of preference—maybe four or five—in which the last will get you a ticket only if there is enough room.

Eastman's Program—Maximum utilization of rail and bus equipment will proceed along lines already laid down by Eastman. This means elimination of duplicate service on competing lines, both rail and bus; reduction or elimination of luxury equipment such as private, club, lounge, parlor, and sleeping cars, and conversion of this equipment to coach travel; lengthening of limited schedules to include more stops; diver-

sion of rail branch-line equipment suitable for more important runs as well as substitution of buses in local service and to serve communities whose train service is discontinued.

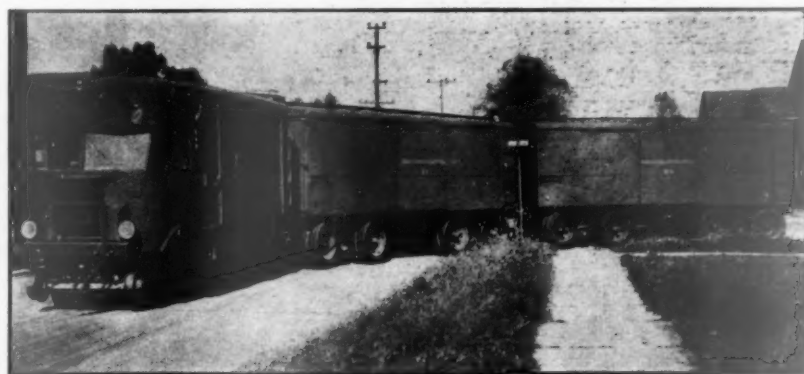
Gas rationing is particularly painful at the outset of the vacation season. Staggering of vacation periods will help railroads and buses to handle part of the load. Resorts served by them will do well—maybe better than in years past—as guests with no automobiles will stay put. Other resorts, motor courts, tourists homes, and eating places will be hard hit, except in localities fairly close to war plants and camps.

Increased Efficiency—As in passenger service, maximum use of equipment also is the object of ODT's regulation of freight traffic. Eastman's first move as ODT director was to order the railroads to raise, in progressive steps, the minimum of less-than-carload merchandise loadings, in 1941 averaging 5.3 tons per car, to 10 tons by Sept. 1. This is to be done by pooling and similar arrangements with other carriers.

Use of box cars in any kind of intracity movements has been prohibited where trucks can do the job. Representing only 1.5% of total freight tonnage, l.c.l. freight nevertheless accounted for over 40% of all boxcars loaded in the first nine weeks of this year.

No Empties—The trucking industry also is under orders, effective June 1, to put its operations on a more efficient basis. Object is to conserve equipment and tires as well as to move more freight. Most trucks in over-the-road service will be required to load to full capacity on outgoing trips and to 75% on return or vice versa.

ODT expects this to be done by contract carriers and private truck owners by revising shipping schedules. Common carriers will be expected to pool facil-



HYBRID TRANSPORT

A three-car Auto-Railer train, which travels on either standard gauge railroad track or, by retracting its steel guide wheels, on a highway, has just been delivered to an eastern ordnance plant where it will be used to haul

explosives. Designed by the Evans Products Co., Detroit, and manufactured at the Highland, Ill., plant of the Hug Mfg. Co., the train's 90,000 lb. payload always rides on its pneumatic rubber—on rails the flanges of the steel wheels keep the car on the track but traction is on the tires.

ities and shipments where necessary. Common carrier truckmen don't like this much, but it is particularly tough on contract and private carriers, most of whose operation is one-way delivery. Special equipment—refrigerator trucks and pie trucks for example—pose a return-load problem which nobody has figured out. The ODT is being flooded with requests for amendments and exemptions.

● **State-Line Barriers to Go**—Trucks will be allowed to load up to but not over 120% of rated tire load as determined in a scale promulgated by ODT. State restrictions on truck size and weights will be lifted (by resort to the President's war powers if necessary).

Local delivery carriers are ordered to reduce monthly mileage 25% under the corresponding month of 1941, exclusive of mileage saved by restricting regular deliveries to one a day to any one person, eliminating special deliveries (with certain exceptions) and callbacks.

● **Priorities for Freight**—The ODT is moving cautiously toward inevitable priorities on freight space. Well aware of the pitfalls of a system which ends up by chasing its own tail, Eastman's boys so far are coping with emergency situations by issuing general and special permits governing the movement of certain types of equipment or freight. Eastman

has banned, for example, all grain shipments over the Great Lakes, except by special permit in order to give the right of way to iron ore (page 17).

By another order, he has taken control of tank cars to move oil and gasoline into eastern states, plus Washington and Oregon, and alcohol and other chemicals to war plants. Tank car hauls of any commodity over 100 miles are exempt. Permits must be obtained for the shorter hauls in order to divert traffic to tank trucks whenever they can take care of it.

● **Seasonal Movements**—Use of refrigerator cars has been confined to perishable products. Shippers of general commodities, such as canned and bottled goods, which use refrigerator cars during winter months to prevent freezing have been requested to move their goods before such protection again is necessary.

With one hand Eastman is trying to regulate the movement of wool into Boston so as to avoid glutting warehouse space; with the other he's trying to rush the movement of coal in solid trainloads against that hectic month—October—when freight traffic normally reaches its peak.

Shippers can help themselves by loading cars heavier, by loading and unloading quickly, by keeping cars rolling.

Coal for Oil

War demands for conversion of furnaces to use of coal find old competitors cooperating and WPB easing the change.

Tumult over gasoline rationing overshadows another crisis on the petroleum front which reached a climax this week. Effective May 16 the War Production Board cut deliveries of light fuel oil to dealers 50% below last year in the 17 Atlantic Seaboard states.

● **Buy Your Coal Now**—As a prelude to this major amputation Donald M. Nelson, WPB chairman, told industrial and domestic consumers to start accumulating coal to the "limit of storage capacity" since there is now some surplus of transport facilities. The alternative, he said, was disruption this fall and winter which might force rationing of coal.

Light fuel oil is the type used for heating homes. There had been previous cuts in deliveries starting at 20%. The reduction of 50% is both an admission that the U-boat drive against tankers has extended the oil shortage from the garage to the boiler room, and notice that home use of petroleum fuels must give way to industrial uses.

● **Eastman Adds a Word**—Nelson's grim warning was seconded by Joseph B. Eastman, director of defense transportation, with the statement that, to avoid serious fuel lacks next winter, 350,000 tons of soft coal must be moved into the Northeast weekly for the remainder of the year.

Both admonitions were calculated to bolster the campaign for converting oil burning equipment to coal. These ancient rivals have buried the hatchet but the truce is only for the duration. Resting place of the tomahawk has been marked and exhumation can be counted on as soon as the shooting stops.

The temporary alliance is acclaimed by the Office of Petroleum Coordinator. In urging all consumers to shift from oil to coal at once, Deputy Petroleum Coordinator Ralph K. Davies announced that conversions already were saving heavy (industrial) fuel oils at the rate of over 10,000,000 bbl. annually and that he expects the figure to be almost doubled.

● **Strange Reversal**—Buried in the statistics are some astonishing reversals. Standard Oil Co. (N. J.), granddaddy of the modern oil industry and still its leader, announced last summer that it was conserving oil by shifting some of its eastern refinery fuels to coal. In all, 268 companies have made the change. An additional 865 concerns have indicated that they can convert.

Drives are afoot to bring similar

The A-B-X of Gas Rationing

Gas ration for pleasure drivers in 17 eastern states and the District of Columbia (certain counties excepted) is 21 gal. per car for the 47-day period from May 15 to July 1, when a permanent plan will be put into effect. This may be picked up in three-gallon units or all at once. The "value" of the unit may be changed during the period.

Pleasure drivers qualify for the 7-unit A cards merely by presenting their registration cards at schools. Car owners who need them in connection with their work—driving to and from, or in carrying on their work—are assured of larger amounts depending upon their individual needs. When registering they fill out an application for one of the B cards, stating the total average daily mileage customarily driven.

More than six but less than ten miles a day rates a B-1 card; more than ten but less than 14, B-2; more than 14, B-3.

Where vocational need is greater than that supplied by a B-3 card, the owner—a salesman, for example—may apply later to a local rationing board for supplementary supplies.

In addition, X cards, good for any quantity, are issued for ambulances

or hearses; taxis, buses, or other for-hire vehicles; practicing ministers; physicians, surgeons, veterinarians, nurses; government officials (with some exceptions); passenger cars used for trucking, hauling, towing, freight carrying, delivery, or messenger service; passenger cars used for hauling materials, equipment, and work crews for construction or for mechanical, electrical, structural, or highway maintenance, or repair services.

Inboard pleasure motor boats are eligible for gasoline on the same basis as passenger automobiles.

Motorcycles and motorbikes get up to 40% of an automobile's ration.

Trucks and commercial water craft are not rationed.

Bulk sales for farm use, for other nonhighway uses, and for outboard motors are permitted without restriction on proper certification.

Gas rationing is essentially on the honor system. Applicants, in the main, get as much gas as they say they need and no check is maintained on compliance by service stations. Station operators are merely instructed to cancel the units delivered, need not turn them in to replenish their own supplies. These are based on 50% of last year's sales.

changeovers to thousands of home basements before snow flies. A temporary difficulty was WPB's order L-79 which on Apr. 16 froze all plumbing and heating equipment. Relaxation of the order was obtained this week. It will allow sales of certain stocks. Inventories of mechanical coal stokers are estimated at 30,000. Oil burners on the shelves are figured at 90,000 to 100,000, divided about 50-50 between dealers and manufacturers.

• **Priority for Coal**—The easement encourages coal equipment at the expense of oil. Oil burners in stock may be sold for replacements only, while coal stokers are completely unfrozen. Other orders have choked down on manufacture of all new equipment. However, grates, doors, dampers needed to convert oil burning fire boxes to coal will be easy to get. In this field Anthracite Industries, Inc., have done a job.

It began last year a study of the conversion problem. Hence it is ready with many of the answers as the mid-May crisis arrives. Outstanding feat is a plan for restoring coal fuel to home furnaces which changed to oil during the past years.

• **Conversion Possibilities**—The organization found some 1,250,000 oil burners in Atlantic Seaboard homes, about 60% of the national total. In many cellar corners investigators uncovered grates and doors that had been taken off when the oil burner was put in but often the junk man already had collected these items for war scrap. It was estimated that (out of the 1,250,000) 380,000 had grates on hand, that for 335,000 grates could be ordered, that 140,000 would require entire new boilers, that 395,000 would have to have special round or triangular grates. For the last category a unique innovation was worked out.

The furnaces needing special grates were something like the orphan automobile, bereft of replacements by the demise of its parent manufacturer. Anthracite Industries Laboratory solved their problem by developing special replacement grates. The round ones are complete suspension and shaker units and come in 19 to 25 in. diameters. The rectangular grates come in adjustable sizes up to 25½ by 50 in.; main parts are a cast iron bar that can be cut to the desired length and notched "keys" which slide along the bars to provide the grate surface.

• **Coal Company Grates**—Aluminum master patterns for the grates have been placed with three big anthracite mining companies (D. L. & W. Coal Co., Hudson Coal Co., Lehigh Navigation Coal Co.) and with the Hershey Machine & Foundry Co. These concerns will supply dealers with the grates, the coal companies producing them in their own foundries. By this means, Anthracite Industries figures that it can replace



FLYING PUP

A small enough scout car was recently lifted into a large enough transport plane and flown from Cincinnati to the Quantico (Va.) Marine Air Sta-

tion, thus making history for both aviation and automotive industries. Dubbed the Bull Pup, the small four-wheel-drive car with six forward speeds was experimentally produced by Crosley Corp. for strictly military purposes.

between 80% and 90% of all the threatened oil burners. In addition to taking care of non-standard grates, the organization has listed for dealers all current types and manufacturers who can supply them.

While rummaging in the cobwebs of cellars for grate parts, investigators checked supply and storage possibilities. All houses either had windows capable of accommodating a coal chute or a door through which coal could be carried. But only 33 out of each 100 basements had coal bins intact. In all but 4% coal bins could be built in available space. The remainder represents cases where bins would encroach upon finished space or living quarters, thereby furnishing a clue to the number of basements that have been dolled up for play rooms or equipped as home rathskellers.

Hope is that conversion can be accomplished gradually, not saved for a wild rush when next autumn's frosts begin to bite.

The oil burner people are setting an example in self-sacrifice. They declare through the Oil Burner Institute, Inc., that competition is out until the war is won. Before the WPB freeze sales were going great guns, too. For the first three months this year's shipments of oil burners were 51,527, against 50,454 for the same period of 1941, and 37,255 for 1940. During the same three months sales of coal stokers were 25,988 this year, 21,031 the year before, and 12,380 the year before that.

Ore Gets the Ships

Starting with grain, ODT begins regulation of traffic on Great Lakes to free vessels for record ferrous tonnage,

The Office of Defense Transportation is bearing down drastically to conserve Great Lakes shipping space for the mountains of iron ore which must be moved for fabrication into the nation's weapons. Two important elements of lake traffic—coal and grain—are immediately affected. Any other movement of freight which may interfere with ore deliveries is likewise under notice to give way.

• **Grain by Permit Only**—All grain movement by lake is forbidden, except by special permit, under an ODT order effective May 15, which is expected to free considerably more than 300 vessels for ore-carrying. The only ships that will be affected are those which can logically carry ore instead of their usual cargoes. (Five auto carriers are now being converted for ore lading.)

Involved in this diversion of grain is a problem for the OPA, inasmuch as the price of flour in the northeastern states will be affected. Rail movement of wheat from Duluth to Chicago costs 27¢, whereas wheat moves from Duluth to Buffalo by lake carrier for negotiated rates ranging from 14¢ to 7¢ a bu. (de-

pending on the availability of vessels).

● **Coal Diversion**—A permit system for coal shipments, "if necessary," was forecast by ODT Chief Joseph B. Eastman early this month. Reports immediately circulated that 25% of lake coal traffic would be diverted to the rails, which would mean about 12,000,000 tons on the basis of last year's 49,733,000 tons of lake cargo coal (BW—Mar. 21 '42, p17). More conservative estimates in shipping circles at Cleveland put the diversion at a possible 4,000,000 tons.

Whatever the tonnage, it seemed certain that industrial and domestic coal users who have hitherto been favored by a rail-water freight rate might, in the normal course, expect to pay up to 50¢ a ton more for their coal, beginning early this summer. Coal prices have ceilings, but the ceilings are established at the mines.

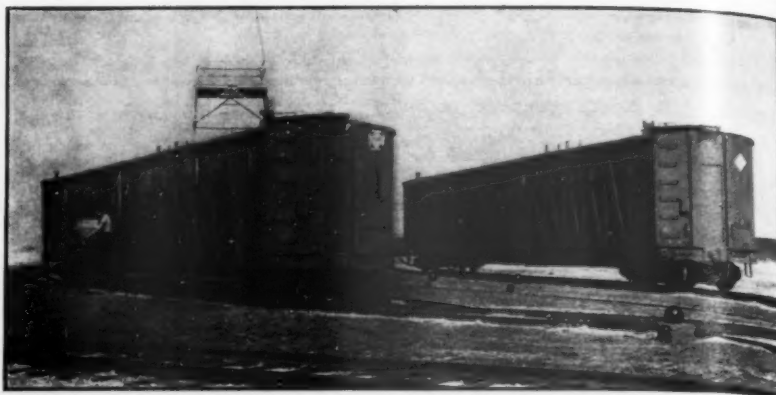
● **Independent Steel Conserves**—Following up last year's action by United States Steel, which began taking its coal at Chicago by all-rail movement in order to conserve its boats for ore, Chicago independent steel and by-product coke interests are now planning to take 50% of their eastern coal requirement by all-rail shipment. Such coal receivers as Inland, International Harvester, Interlake Iron, and Youngstown Sheet & Tube will be affected.

Steel companies and lake carriers long have been bound together in a community of interests. Largest carrier company on the lakes, the Pittsburgh Steamship Co., is a direct subsidiary of U. S. Steel, and there is considerable interlocking ownership among mining and shipping companies. Thus, in many cases, self-interest has speeded practical methods of voluntary control.

● **Organizing the Effort**—A. T. Wood of Cleveland, president of the Lake Carriers Assn., now working as an assistant to Eastman on Great Lakes transportation, was instrumental in setting up a new Lake Vessel Committee. The Ore and Coal Exchange, Cleveland, which speeded ore and coal handling during the last war by coordinating boats and rail service, last week decided to establish a branch office in Buffalo to handle Lake Ontario traffic.

William J. McGarry, the exchange manager, for years has been manager of the open top section, Assn. of American Railroads. With new war responsibilities added, he is today one of the busiest transportation experts in America. The new Buffalo office will handle largely the shipments by Canadian vessels, which got into American ore handling this year two months earlier than last.

● **Effect on Railroads**—Effect of ODT lake-traffic control on the rails cannot be measured accurately in advance, but the expected trouble will be days rather than number of freight cars. All-rail coal will tie up cars more days than rail-water coal. Besides, the railroads



ROLLING GUN SHOP

When Army guns are in action, they need constant attention and repair. Rather than ship its larger guns to a central repair station, the Army can now bring new mobile shops to the guns. Former railway maintenance cars, 72 ft. long, are equipped with a variety of machine tools, including welding apparatus, so that they can tackle repair jobs on all types of guns. Electric power for each car is provided by four self-contained generators. Soldier crews are made up of experienced machinists who are trained to operate the most modern equipment.



may find they need terminal facilities that were not needed when part of their coal tonnage took to the lakes.

The railroads already have reduced the load-to-load time, and tremendous voluntary pressure is being exerted on shippers to release cars quickly (BW—Apr. 25 '42, p17). Fifteen or 20 years ago, the load-to-load time for an average freight car was 16 days. Now it is 12, and going down.

● **Record Season**—The lake carriers this week were well started toward their goal of more than 90,000,000 tons of iron ore this season, a figure which once might have seemed impossible. Almost the entire lake fleet was in operation this year by April 1—a victory in itself. Lake traffic normally opens about April 15 and some years ice holds up movements into Lake Superior until mid-May.

This year, the May 1 total of iron ore shipments from Lake Superior was 8,581,740 tons, an increase of 1,626,947 above last year's May 1 total. Also, lake carriers had shipped 6,706,153 tons of coal up to May 1, a 4,189,327-ton increase over last year, when the coal strike delayed early season operations.

● **Through the Welland**—In the Welland Canal April established an all-time high monthly record with 623 vessel passages, mostly ore and coal. The tonnage was 1,102,412 compared with

652,865 in 409 vessels for April, 1941. This month there may be a decline, however, because some of the boats are being diverted to the Atlantic coast trade.

Discussion of lake traffic control has brought out that nearly half the limestone shipments are used by customers outside the steel industry. Last year's 19,000,000 tons of limestone handled on the lakes was divided: 56% flux in iron furnaces; 24% chemical industries (soda ash and calcium carbide); 12% cement manufacture; 7½% road and construction materials.

● **New Lock for Soo**—While ODT pushes its conservation measures, the building of new lake freighters and the enlargement of lake facilities are being hurried as part of the war program. Work on the "Gen. Douglas MacArthur lock," which replaces the oldest of four parallel American locks at the Soo, is being hastened.

War came closer than ever to the lake carriers this week when Col. Fred T. Cruse, commanding the Sault Ste. Marie military district, announced that coast artillery and anti-aircraft practice firing from May 12 to June 11 would create a danger area along the Lake Superior shore from Agawa Point, Ont., to Corbeil Point, Ont., and into the lake for 19 to 22 miles.

Victory is only a question of MAN-HOURS

Each day the nation is becoming more conscious of the importance of materiel production and its effect upon the progress of the war. Indeed, Victory can be anticipated only when sufficient equipment is made

available to our fighting forces — and "Duration" may be determined by the time required to produce this equipment. Time losses, no matter how trivial, postpone Victory-day just that much longer. Every accident in our productive plants contributes to this delay. The time of valuable workers lost through injury or sickness is a distinct loss to the nation!

Such accidents can be prevented. A program of education which instills a safety consciousness among workers, and approved safety methods in the handling and use of machines and materials, will reduce—even eliminate them. Our staff of safety engineers, serving our Workmen's Compensation insurance policyholders, has achieved nation-wide recognition for its work in accident prevention.

If accidents have caused production delays in your plant you naturally seek ways and means for their elimination. We invite your interest in Employers Mutual accident prevention service and a consultation may be arranged quickly. Phone or write our nearest office.



Employers Mutual SERVICES FOR THE CONSERVATION OF INDUSTRIAL MANPOWER

- ★ **Safety Engineering Service.** Continual plant inspections by experienced safety engineers to eliminate accident hazards.
- ★ **Industrial Hygiene Service.** Established laboratory devoted to the prevention of occupational diseases through the elimination of dangerous dusts, gases and fumes.
- ★ **Industrial Nursing Service.** Registered industrial nurses assist in occupational disease prevention and the establishment and training of plant first aid units.
- ★ **Nation-Wide Claim Service.** Regardless of the location of policyholder or claimant, Employers Mutual service is established for quick payment of claims.
- ★ **Rehabilitation Service.** Physiotherapy laboratories or "curative workshops" are maintained to hasten the recovery of injured workmen and restore their earning capacity as soon as possible.



OFFICES IN THE PRINCIPAL CITIES OF THE UNITED STATES • Consult Your Local Telephone Directory

Woman's Place

Surveys show they not only can do the job but that they often do it better. Obstacles to employment are giving way.

The No. 1 question for any employer faced with the necessity of employing women is, "Can they do the job?" In most cases the answer is yes. Their big limitations are lack of training and physical strength. If an employer is forced to use women for tasks beyond their ability, he can even get around these obstacles to a considerable extent by diluting jobs. Complicated jobs, usually performed by a skilled man, can be broken down into a series of relatively simple operations.

One employer who found that women were too short to reach overhead machinery, solved the difficulty simply by building a wooden platform.

• **What USES Found**—The United States Employment Service recently surveyed 1,859 occupations in 21 key war industries and 937 occupations in non-war industries where there is now an active labor demand. Finding was that women could perform 80% of the war-industry jobs—though they fill only 8.5% of them now. Only 80 of the 937 occupations in civilian industry were found unsuitable for women.

Most encouraging report on women as workers comes from the Bureau of Employment Security. BES surveyed a number of California plants (including an aircraft manufacturer, a radio manufacturer, and a maker of electrical parts) employing significant numbers of women. In every plant there was an increase in production per hour and a lowering of costs per unit when women were put on the assembly line. Part of the credit goes to the women only indirectly—competition between the sexes spurred men to higher production.

• **Easier to Supervise**—Other BES findings: (1) Women required less supervision and were easier to supervise. (2) Labor turnover decreased. (3) The number of industrial accidents decreased. (4) Damage to tools and materials was considerably less than when similar work was performed by men.

Generally, experience in the last war and this indicates that women are best adapted to jobs which require patience, care, alertness, keen eyesight, and finger and hand dexterity. Women are now turning in records on work which involves reading blueprints and using such light instruments as gages and micrometers. Typical of the jobs to which they are adapted is wiring aircraft instrument panels. On this, airplane plants are finding women 50% to 100% faster and more efficient than men.

• **Difficulties**—The troubles attendant on hiring women stem principally from assorted emotional, psychological, and physical peculiarities, rather than from women's inability to do a job of work.

Women tire faster than men. Many companies which had men standing up at their jobs as a matter of course, found women dropping by the wayside. As soon as means were devised for letting the girls sit down, their production topped the men's. Women are likely to be more susceptible than men to noise, dirt, unpleasant smells and fumes, inadequate wash and lunchroom facilities.

• **40 Hours vs. 48 Hours**—In a study on women in war industries, the Industrial Relations Section of Princeton University's Department of Economics queried 62 companies on their experiences with women workers. Most plants reported virtually no problem with absenteeism and turnover when women worked 40 hours a week. When women worked 48 hours or more, absences shot up, became much greater than for men in the same departments.

Absenteeism results less from fatigue and illness than from the fact that women—particularly women with children—have to take a certain amount of time each week for shopping and household chores and if they can't work it in any other way, they'll take it on the plant's time. For some reason California plants have had less trouble with this than those in New England.

• **A Six-Hour Day?**—As more married women are drawn into industry, absenteeism probably will become an acute problem here, as it has in England and Germany. One way to get around it may be a six-hour day; there is talk of this in Washington now.

Bridgeport, Conn., already has worked out a system for dealing with absenteeism with the cooperation of local wel-

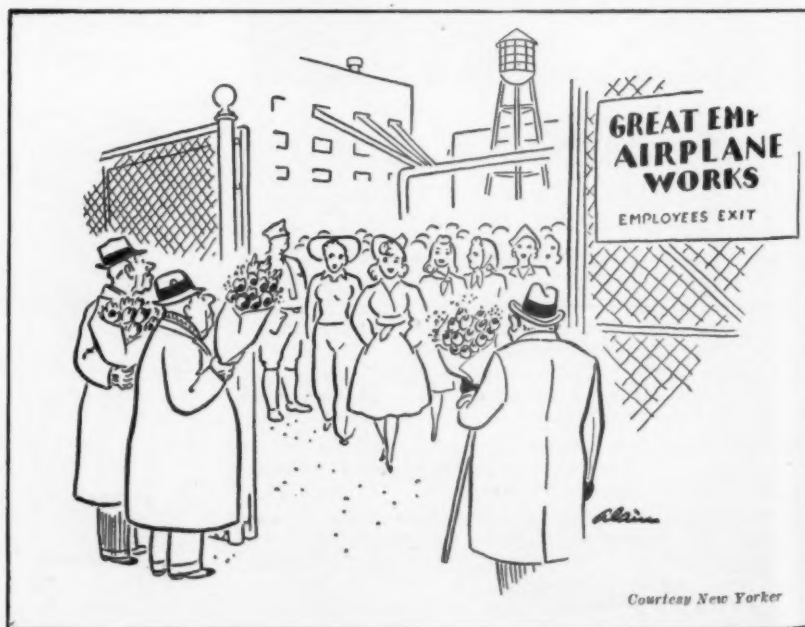
fare committees, the civilian defense board, the C.I.O., A.F.L., and manufacturers' association. The Bridgeport plan is for personnel managers to employ no mothers without finding out if provision has been made for caring for children. If the mothers have no arrangements, they are referred to the Department of Public Welfare for help.

• **Choice of Shift**—Women with children are given a choice of shift, since their hours must be adapted to their children's and they can't be rotated. Plants post notices that this choice of shift has been granted at the request of the local civilian defense committee. This provision is particularly important, since the concession to mothers often cuts across seniority privileges.

Many married women prefer late afternoon and night shifts because they are able to be with their families and attend to household duties during the day. The trouble is that even the leftest woman is likely to break down under the double burden. Night shifts for women encounter transportation difficulties, inasmuch as they are considerably more averse than men to waiting on dark corners for infrequent buses and streetcars.

• **Some Beliefs Debunked**—The Princeton survey also scotches a few popular beliefs about women workers. Most plants find that—when children are properly cared for—married women and those with dependents make the best workers. Women who are married to male employees are particularly good. They have more loyalty and familiarity with company policies, don't add to housing troubles, and won't be a disturbing factor in postwar readjustments since they can be dropped from the payroll without throwing a family on relief.

Most plants report that men who



Courtesy New Yorker

CONSERVATION CONTROL CARD No. 10

General Information on Files

HOW TO IDENTIFY AND ORDER FILES

Name	Files have descriptive names based on their outline or shape (as Taper), or their cross-section (as Round). Exception: error in cases where the name is suggested by its intended purpose or the place where it is used (as Mill).
Cut	<p>This term refers to two characteristics of the tooth.</p> <p>(a) It identifies the character of the tooth, that is, whether it is Single cut, Double cut or Rasp cut.</p> <p>(b) It identifies the degree of coarseness of the cut, that is, Smooth, Second Cut or Smooth. Or in Superfine Swiss Pattern Files by number: 00, 0, 1, 2, 3, 4, 6—60 being the coarsest.</p> <p>The relative degrees of coarseness in files vary proportionately to the length of the file. Thus a 12-inch File Smooth would be considerably coarser than a 6-inch File Smooth.</p>

AMERICAN PATTERN FILES

Double Cut	Double Cut files have two courses of teeth or chisel cuts crossing each other, one course being finer than the other. The Double Cut is used on Machine Tools such as Flat, Hand, Square, etc.
Single Cut	Single Cut files have one unbroken course of teeth or chisel cuts across its surface, parallel to each other but at an oblique angle to the length of the file. The Single Cut is used on Saw files such as Taper, Case and Mill.
Rasp Cut	The Rasp Cut differs from Single Cut and Double Cut in that teeth are independent of each other—each tooth is formed separately by a single pointed tool or punch.

SUPERFINE SWISS PATTERN FILES

Superfine Swiss Pattern Files are finishing files and are made to more exacting specifications than American Pattern Files. All are double cut with tooth spacing ranging from the coarsest, No. 00, to the finest, No. 6. They are compared in coarseness to American Pattern Files as follows: No. 00 equal to Bastard, No. 1 to Second Cut, No. 2 to Smooth.

Length—The length of a file is measured from the head to the point. This does not include the tang.

When Ordering Files—Give definite information as to length, name and cut.

(CONTINUED ON OTHER SIDE)

Correct use of tools... makes work easier... saves vital materials

34 FREE Disston Conservation Control Cards

help
**SAVE TOOLS
AND MATERIALS...**
**SIMPLIFY SUPERVISION
SPEED PRODUCTION**

The present emergency calls for the utmost in output with the greatest possible saving in tools, time and materials.

The Disston Conservation Control Plan will aid you in war time production effort with Instruction Cards, like the illustration. Each of these 34 cards covers a different type of cutting tool. On the face and reverse of each card is practical, expert information to correct faults in operation, avoid failures and prevent waste. Recommendations are made for the selection, adjustment and repair of tools—to lengthen tool life, improve workmanship and product, and avoid delays.

Many plants are reporting that

Disston Conservation Control Cards are proving a valuable means of reducing breakage, increasing efficiency, simplifying supervision, and expanding production.

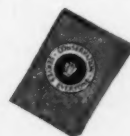
You can apply these cards in your plant without cost or obligation—whether or not you use Disston products. Order the quantity and type required and they will be sent promptly. Free Conservation Control Plan posters, stickers and lapel buttons are also available without charge.

Join the national War on Waste! Send *now* for the free booklet on the Disston Conservation Plan. Write to Henry Disston & Sons, Inc., 528 Tacony, Philadelphia, Pa., U.S.A.



THIS FREE BOOKLET

tells you about the Disston Conservation Control Plan and contains reproductions of Instruction Cards, Order Blank and descriptions of other free material. Send for it *today!*



work side-by-side with women cease to find them a disturbing influence within a week or two. But the girls are likely to prove pretty distracting to adjoining unfeminized departments. One company had to move the women's wash-room because production came to a standstill every time a girl passed an all-male assembly line on the way to powder her nose.

● **Antagonism Vanishes**—Masculine antagonism likewise vanishes pretty fast, once women are actually in the plant. Significantly, however, women have made their biggest inroads in the newer industries which haven't been set aside since time immemorial as "man's work."

That's one reason for their success in the aircraft plants—in one plant nearly 25% of the workers already are women. Though both A.F.L. and C.I.O. officially support a policy of nondiscrimination and equal pay for equal work, it has sometimes been hard to sell this to the rank and file of local unions, particularly when there were still a few unemployed men.

● **Resentment Over Output**—Where women's output has exceeded men's, resentment has sometimes become acute. In one Connecticut plant, output shot up 40% after women were taken on. The men got sore. They declared that the women were fresh on the job, hadn't settled down to a working "level" which they could sustain year in and year out.

One big problem in hiring women today is that many of them have never worked before; others, like some of the girls in the West Coast airplane plants have been lured by wartime wages from jobs as school teachers, movie extras, beauty-shop operators, and whatnot. The employer has little or nothing by which to judge their skills and abilities. To solve this difficulty, USES has drawn up a special series of aptitude tests for untrained women.

● **Special Work Laws**—Over half the states have special work laws for women—requiring one day's rest in seven, forbidding night work, or limiting the work-week for women to 48 hours. Virtually all of these laws have been relaxed since the outbreak of war.

Only a third of the companies questioned in the Princeton survey adhered to the policy of equal pay for equal work. Most of them admitted frankly that women were lower-paid largely because of the operation of supply and demand.

● **Differences Are Disappearing**—As the labor market tightens, pay differences are disappearing. The aircraft plants now have the same entering wage for women as for men. The London Economist comments that in England "the war has done the reformers' work for them," when it comes to women's wages. The same thing probably will happen here.

Nation Appraises Its Womanpower

Women are going to be needed, in staggering numbers, to man the nation's war production plants. Even more women will be called upon to replace men in civilian industries and services. So far, however, advance publicity has anticipated the need.

Because many women have rushed to volunteer only to be angered and disillusioned by the discovery that they couldn't sign up immediately as spot welders, machinist's helpers, and drill press operators, Washington is now applying the soft pedal.

● **Presidential Announcement**—This, in part, explains the President's announcement of a fortnight ago that a nationwide registration of women for war work was not immediately in prospect. Another reason is that the manpower registration is quite enough to handle at one time.

The U. S. Employment Service has announced that it has 1,500,000 women registered who are looking for jobs and that a special check of 12,500 war industry plants indicates that there is little immediate chance of their being taken on for war work. Of a total of 675,000 hiring which these firms expect to make by July 1, only 79,000 openings are for women.

● **A Shortage, But**—This does not mean that there isn't an acute labor shortage—of women as well as men—in many war production areas. But if New York stenographers take it into their heads to emigrate en masse to jobs in the Southern California airplane plants, the result will be chaos on a national scale.

An important related problem is housing. The chances are nine out of ten that wherever there is a labor shortage, there is an even more acute housing shortage. While this may operate against the hiring of any outsiders, it is also the answer to the argument that women should not be hired for men's work as long as there are still unemployed men in the country. If a company hires the wives and daughters of its men employees, no extra housing need be provided.

● **Local Registration**—Hence, the first answer to labor shortages is local registration of women. Connecticut housewives indicated their availability for war work when they signed up for sugar ration cards. In March, 99,000 Oregon women registered for work as harvest hands this summer. Hard-headed labor and personnel experts point out, however, that there is likely to be a considerable gap between the number of women that sign up and the number that actually

show up at the factory gate or farmhouse door. Immediate job openings for women are concentrated in a few areas—along most of the West Coast; around the Great Lakes; in New England, particularly Connecticut; in individual war-boomed cities like Baltimore, St. Louis, and Buffalo. In some cases, "priorities disemployment" has just about kept pace with hiring for war production.

● **What's Ahead**—By the end of 1942, or certainly by early 1943, the labor shortage will have become general. The Bureau of Labor Statistics estimates that a shortage of some 6,000,000 workers is in prospect for late 1943. With the exception of a few hundred thousand boys of pre-draft age, this gap will have to be plugged almost entirely by women—mostly by women who have never before been gainfully employed and who are not driven to seek work by economic necessity.

Today, out of an estimated total of 8,500,000 war workers, 1,000,000 are women. By the end of 1943, there will be 20,000,000 or more war workers and 4,000,000—or one-fifth—will be women. That means that 3,000,000 women will be needed in war plants in the next two years; and at least that many more will be absorbed into civilian industry.

● **Reserve Woman Power**—How do these potential needs stack up against the nation's reserves of unemployed womanpower? At the end of December, there were 13,000,000 women already in the labor market—all but about 1,000,000 of them employed. There were 3,500,000 women who were overage or unable to work. There were 4,400,000 women students (most of them under 18); probably four or five hundred thousand of these can be drawn into industry.

The big reserve, however, is the 29,600,000 women who are either housewives or at home. Of these, 6,700,000 are farm women—and nobody wants to take them off the farm. Some 8,700,000 are women under 45, but with children under ten. The BLS figures that no more than 1,100,000 of these can be employed. There are 9,300,000 women over 45. This is the group that employers are most reluctant to draw on. BLS thinks they will supply another 1,100,000 to the labor force.

● **Under 45 Group**—There are 4,900,000 women under 45, with no children under ten. If the real pinch comes, at least half of this group will have to be moved out of the kitchen and onto the assembly line.



Two on the aisle for the Milky Way

You are sitting out on the edge of space. Ahead of you a couple of million stars are blinking. It is dark below you. The earth is down there. Six miles down.

You are the bombardier in a Boeing Flying Fortress* making more than three hundred miles an hour over enemy territory, and you are ready for action any minute.

Behind you, the navigator is on the job, too. So are the pilot and co-pilot, the radio operator and the gunners behind them. The objective is near. The task force is ready for business.

One of the reasons that Boeing Flying Fortresses complete so many missions on

schedule is that Boeing designers and engineers build for performance of personnel, as well as for the performance of the airplane itself.

Boeing engineers study the effect of noise upon the nervous system of fighting men, and they sound-proof their airplanes accordingly. (Today the giant four-engined Boeing Flying Fortress is as quiet as any luxurious transport.)

Boeing heating engineers have made it possible to maintain a cabin temperature of 60 degrees above zero when it is 60 below zero in the stratosphere outside. Boeing designers work constantly with problems of seat construction,

window construction, lighting, ventilation, and vibration control.

This is the engineering that has created giant Clippers capable of taking whole oceans in easy stride, and Stratoliners* which carry their passengers in new comfort through the smooth upper air. This is the engineering that permits the nine men in a Boeing Flying Fortress to carry out their orders swiftly and exactly and thoroughly.

The increase of human efficiency . . . both in war and peace . . . is only one of the many different projects that are a constant part of the Boeing engineering schedule.

DESIGNERS OF THE FLYING FORTRESS • THE STRATOLINER • PAN AMERICAN CLIPPERS

BOEING

*THE TERMS "FLYING FORTRESS" AND "STRATOLINER" ARE REGISTERED BOEING TRADE-MARKS

Oil Squeeze

Axis aims for remaining sources of United Nations oil in Old World. What's left is a long haul from the war.

By the Axis blueprint, the next phase of the war—the battles of the five months just ahead—will be an oil squeeze against the United Nations, a bitter struggle for two great oil fields.

• **Long Haul**—The United Nations are still masters of nearly 93% of the world's oil, but more than 60% of the world total comes from the United States and its neighbors bordering on the Caribbean—a long haul from the army fronts in Europe and Asia. Closer to the fighting planes and tanks are the four important oil fields shown on the map below.

Of these, the Rumanian field was occupied by Germans more than a year ago in a blitz maneuver so carefully handled that none of the wells was damaged or destroyed (though most of them belonged to the British). It is on this oil—though it amounts to only 45,000,000 bbl. a year—that the Nazis are counting for their spring drive.

• **What Japan Got**—At the other end of the Axis, the Japanese have done a far more dramatic job of grabbing strate-

gic oil bases. Tokyo, relying chiefly on the United States and the Netherlands East Indies, filled less than 10% of its peacetime oil needs at home but three months of war brought under its control the oil fields of the Netherlands Indies—60,000,000 bbl. of oil a year in normal times. Experts declared the reserves were rich and that output could be doubled in a comparatively short time. Dutch and American interests had built important refineries.

When these fields fell to the Japanese, the United Nations forces in the Far East had to fall back on the small output of the nearby Burma oil region (see map), and on supplies hauled from Iran, or brought across the Pacific.

• **Loss in Burma**—The Burma fields, which produced a bare 8,000,000 bbl. a year, were reportedly destroyed by the British before they were yielded to the Japanese. But the loss was vital to China, for this oil made up the bulk of her supplies after the country's coastal ports fell into the hands of the Japanese.

The two fields around which the battles of the next two months are likely to revolve are far larger and more critical than those that have already fallen.

Russia's great Caucasus oil base—centering around Baku and Grozny—turns out more than 215,000,000 bbl. a year. Without this vital area, providing more than 80% of Russia's oil, Moscow cannot fight indefinitely.

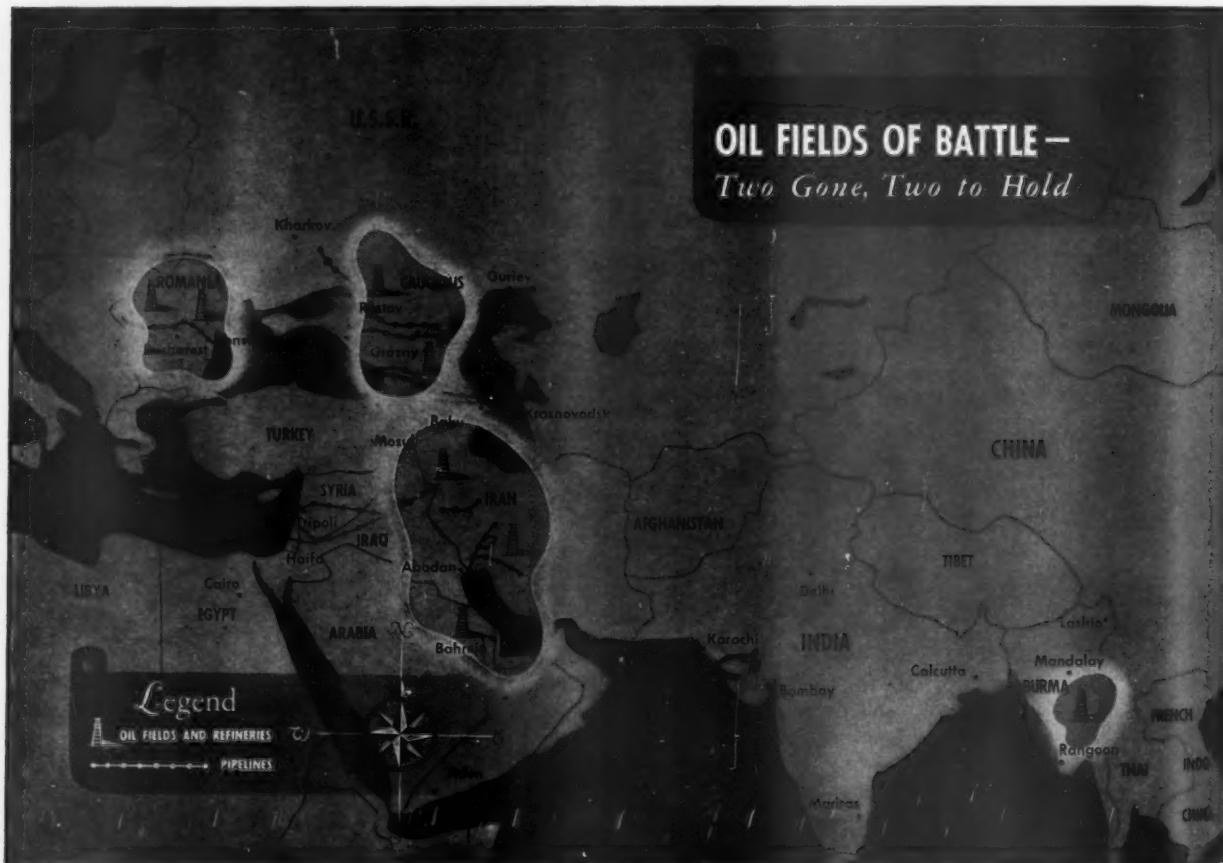
• **Hitler's Goal**—With it, Hitler will be

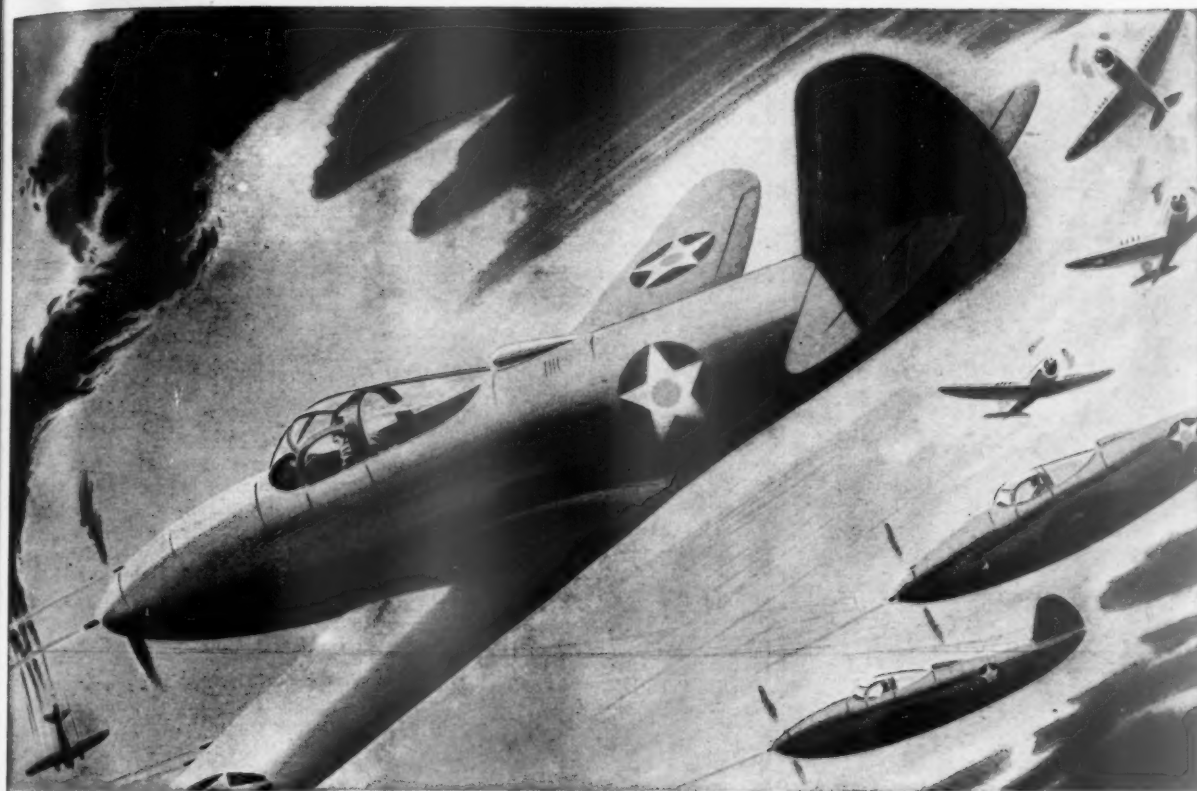
set to carry on his dream of the conquest of the Middle East and of the Old World's fourth great oil field, source of fuel for the planes and tanks of the United Nations in the battlegrounds bordering the Mediterranean and Red Seas, and the Indian Ocean. This is the rich field stretching from Mosul, Iraq, through Iran to Bahrein in the Persian Gulf.

The Mosul section is producing little oil now, but it could be pushed into active operation on short notice. The Iran wells, largely owned by the British government, provide the main supplies for the British fleet in the Indian Ocean. Along the west shore of the Persian Gulf are the rich new Bahrein oil fields and the modern refinery belonging to the Standard Oil Co. of California. Together, these three producing zones in the ancient Euphrates valley provide 110,000,000 bbl. of oil a year.

• **Where It's Needed**—Their main value to the United Nations is that they provide oil where it is desperately needed. Now the planes fighting the Japanese for control of Burma and southern China must be fueled with Iran oil, hauled 3,000 miles from Abadan. If the Mosul-Iran-Bahrein field goes, the United Nations will be forced back on the already overtaxed supply line from the United States.

It is through this perspective of supply routes and the tanker shortage that the coming oil squeeze must be viewed.





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Weather for
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It takes uniform factory temperature to hold finishing operations to close tolerances, particularly when top speed and a minimum of rejects are "musts." That's one reason man-made weather is now recognized as a vital production tool in war material plants.

Cost records prove that air conditioning pays—if the system is right for its particular job. In most plants that means wisely chosen decentralized units, rather than a central system.

Why? Because with individual units any section or department can be given precisely the air conditioning it needs: temperature control, humidity control, and dust control, each only when and where required, each only to the most profitable degree. Should a decentralized air conditioner be damaged, production would be affected in only a limited part of the plant. Individual units are more quickly installed, too; they often require no ducts.

Because no two problems are alike, the counsel of a locally experienced expert is invaluable when you're considering air conditioning. You'll find your resident Fairbanks-Morse engineer an ideal collaborator. The completeness of the F-M line frees his judgment from bias. To arrange a conference, simply write Fairbanks, Morse & Co., Dept. E-131, 600 S. Michigan Ave., Chicago. Branches and service stations throughout the United States and Canada.



FAIRBANKS-MORSE
Air Conditioners

WAR BUSINESS CHECKLIST

Washington's Significant Orders on Materials and Prices

• **Autos**—Production of replacement parts for autos and light trucks is limited by Order L-4-c to parts for engines, running gear, springing, electrical system, instruments, wipers, and control mechanisms. Output in the second and third quarters is limited to 70% of the dollar volume for the corresponding quarter of 1941. Previously production up to 300% of the 1941 rate was permitted.

• **Safety Equipment**—Except for specified applications, use of critical metals, asbestos cloth, plastics, and rubber is forbidden in the manufacture of safety equipment on priority ratings below A-2.

• **Hand Trucks**—Manufacturers are forbidden by L-111 to deliver hand trucks with rubber tires except where necessary to prevent explosions, or for handling of unbaked grinding wheels or green foundry cores, or to prevent damage to instruments which are part of the truck. For 90 days deliveries may be made to Army, Navy, and Maritime Commission.

• **Refrigerators**—Prices of used mechanical refrigerators may not exceed a table of prices incorporated in Regulation 139 and generally reflecting February price levels. The table lists specific prices of various models and ages of box for "as is," "unreconditioned," or "reconditioned" state.

• **Stoves**—Manufacture of domestic electric ranges on ratings lower than A-1-k is halted June 1 by L-23-b. May production may rise to the average monthly rate for the year ended June 30, 1941. All existing stocks are frozen.

• **Petroleum**—According to M-114, no priority ratings may be attached to orders for fuel oil except for ocean-going vessels.

• **Cottonseed Oil**—Maximum prices for various grades of cottonseed oil are made uniform for the industry by amendment of the fats and oils schedule (No. 53).

• **Textiles**—Maximum manufacturers' prices for "back-filled" sheets are established by amendment of the bed-linen schedule, No. 89.

• **Metals**—Effect of increased freight rates on prices of iron and steel products under Schedules 6 and 49, according to OPA, is that sellers may not add the increased freight on incoming shipments but may make the addition on outgoing shipments where the freight is "a component and declared part of the maximum price."

No copper which was in a manufacturer's inventory before Feb. 28 may be used after June 15 in any product except on ratings of A-1-k or better or on a specific authorization applied for on form PD-426. (Inventory acquired after

Feb. 28 is assumed to have been properly allocated.) This is provided in a revision of M-9-c.

• **Machinery**—Prices and rentals for nearly all new, used, and rebuilt machines not already covered by formal price orders are frozen at the Oct. 1 levels by Regulation 136, as are also prices for machine work done on a customer's material. Prices of special design or new machines are computed on the basis of the costs in effect last October. Resale price of such machinery is the cost to the seller plus the percentage markup in effect Oct. 1. Price for rebuilt machinery is 85% and for other used machinery is 55% of the October price of the most nearly comparable machine. Machine work must be priced on Oct. 1 costs. Work done on subcontract is exempted from the ceiling.

• **Scrap**—The OPA's supplementary order No. 5 licenses all dealers in scrap or waste covered by Price Schedules 2, 3, 4, 8, 12, 20, 30, 47, 55, 70, 87, 90, 115, 123 who sell to consumers and all dealers in iron and steel scrap who sell to brokers.

• **Enforcement**—Three Puerto Rican rum distillers, Jose Del Rio, Compania Ron Carioca Destileria, and Borinquen Associates, are charged by WPB with distilling rum from molasses during Jan. 15-30.

Order S-40 forbids Southern Scrap Material Co., New Orleans, to accept any copper scrap for three months and orders it to dispose of its inventory as directed by WPB. Charge is accumulation of excessive inventories of scrap.

OPA has obtained a restraining order forbidding transaction in iron and steel scrap above ceiling prices against: Security Manufacturing Co., Leeds Material Co., Alabama Pipe Co., American Brake Shoe & Foundry Co., Sheffield Steel Corp., all of Kansas City, Weirton Steel Co. of Weirton, W. Va., and the Sonken-Galamba Corp. of Kansas City.

• **Other Priority Actions**—WPB has authorized OPA to ration tires for industrial equipment. . . . L-113 forbids use of any metal in pencils except ferrules for erasers now on hand. . . . Amendment of Order M-19, chlorine, waives filing of reports by retailers. . . . Reporting requirements have been eliminated from blanket ratings in the P-19 series. . . . WPB has asked electric utilities to discontinue street lighting extensions except as required by safety.

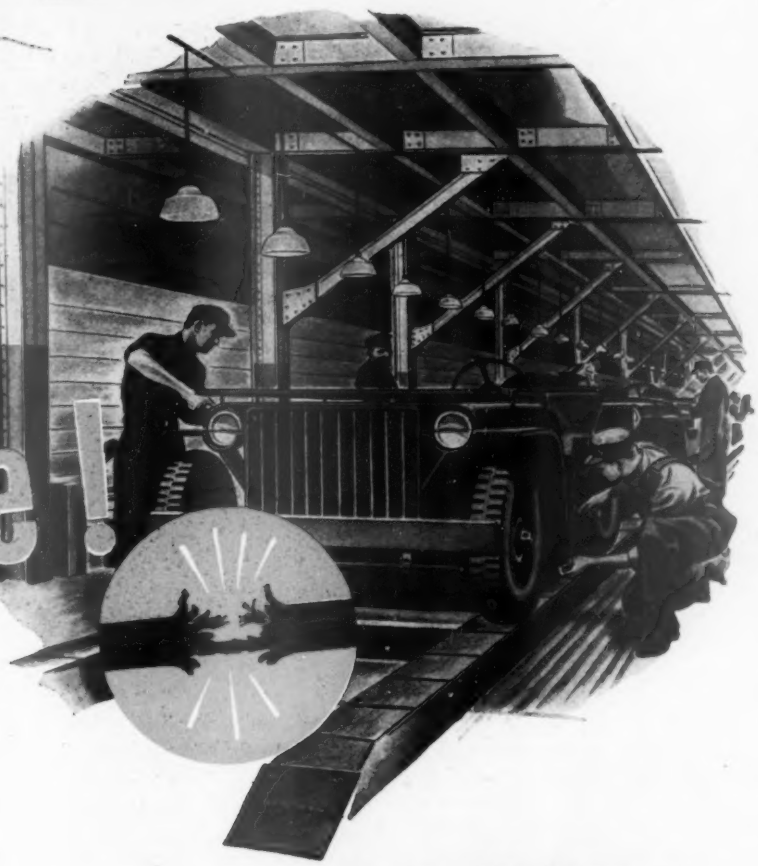
• **Other Price Actions**—Industrial diamonds are covered by the General Price Regulation despite the exemption of precious stones. . . . A formal ceiling order will issue soon on commercial grey iron castings.



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For swift, on-the-spot maneuvering, the famous 4-wheel-drive jeeps rely on quick-starting, powerful motors. All-important to the jeep is the unfailing ignition... and for this vital function manufacturers put their trust in electrical cables of copper. Cable failure might be serious.

or here!



Important too, as the part they play in any single jeep, is the part played by electrical wires and cables in the plants that are producing this invaluable equipment for America's war effort. For wire failure here would interrupt production, itself.

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Meanwhile... Anaconda Wire & Cable Research carries on: Keeping pace, the research laboratories of the Company are likewise working with redoubled effort. Here daily, is being carried out original research to improve our

regular products and to develop new and better ones.

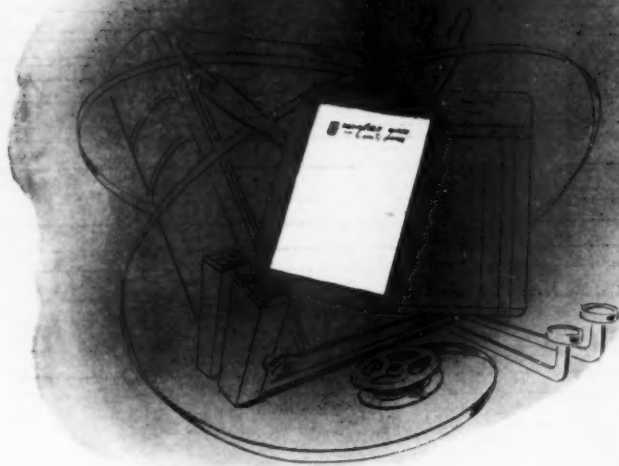
Today the benefits are going into our country's war effort. But when this war is won, Anaconda Wire & Cable Company will have collected a valuable backlog of product development and research to place at the service of industry everywhere.



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WINCHESTER LEDGER (50%) BLACKSTONE LEDGER (25%)

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DEFIANCE INDEX (100%) WINCHESTER INDEX (50%)
WESTON'S MACHINE POSTING INDEX (50%)
MACHINE ACCOUNTING
TYPACOUNT LEDGER (75%)
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WINCHESTER BOND (50%)
BLACKSTONE BOND (25%)

Help for Arnold

Supreme Court's decisions in Masonite and Univis cases (both involving price fixing) aid antitrust campaign.

In two far-reaching decisions, the United States Supreme Court this week served notice that Assistant Attorney General Thurman Arnold can count on its support in his patent-busting campaign. Reversing lower court decisions, the high court upheld his charges of price-fixing against Masonite Corp. and nine distributors of its patented hardboard and against Univis Lens Co.

• **Masonite Contracts**—Particular significance attaches to the court's ruling on Masonite, by virtue of the company's system of distributing its hardboard via del credere agency agreements (BW—Aug. 16 '41, p60). Essential feature of a del credere contract is that title to the goods remains with the manufacturer; the distributor merely acts as agent, accepts the goods on consignment, and pays for them when sold. Thus, the manufacturer can exert price and marketing controls past primary levels.

Since 1926, manufacturers using del credere contracts have been immune from price-fixing action by virtue of the Supreme Court decision sanctioning the price and marketing controls under which the General Electric Co. licensed Westinghouse to manufacture and sell its lamps. Now, a different court is of a different mind. The Masonite decision said, "Certainly if the del credere agency device were given broad approval, whole industries could be knit together so as to regulate prices and suppress competition."

• **Ethyl Gas Precedent**—First indication that the Supreme Court was going to uphold Arnold in his campaign against secondary price-fixing and marketing control came over two years ago in the celebrated Ethyl Gas case. This did not involve del credere agreements, but the court condemned the system whereby Ethyl licensed jobbers and prohibited its licensed refiners from selling to any but these jobbers (BW—Mar. 30 '40, p17).

The Univis case parallels Ethyl in that no agency agreements were involved, but the company licensed wholesalers and retailers, fixed the prices at which they might resell its lenses. Univis claimed immunity from price-fixing action because of its fair-trade, minimum-resale-price maintenance agreements with wholesalers and retailers. But the court ruled that, since Univis sold only lens blanks and finishing was done by distributors, licensees were not engaged in the "resale" of the same commodity they bought, hence the agreements constituted price-fixing.

THE WAR— AND BUSINESS ABROAD

Busy War Week

While epic battles occur on distant fronts, U. S. builds added defenses by tightening of hemisphere economic controls.

Epic battles were fought on three fronts this week, but they are still only the preliminaries to the huge Nazi push which everyone awaits. The battle in the Coral Sea, which MacArthur headquarters in Australia declare thwarted an invasion effort by the Japanese, apparently ended in a complete victory for the United Nations, leaving Tokyo with a dangerously exposed flank. However, Washington frankly expects further Japanese efforts.

Japanese Reverse on Land

Japanese land forces also suffered a serious reverse. Victorious troops which pushed the British out of their last important bases in Burma and pursued the retreating Chinese across the border into Yunnan province were suddenly cut off from the rear by a shrewd Chinese maneuver and suffered serious losses. But it is already plain that there are enough reserve forces at Rangoon to prevent the permanent loss of northern Burma, though perhaps not enough now to continue the drive into China.

But the battle which may yet prove most significant was the four-day blitz which the Nazis staged in a desperate effort to dislodge the Russians from a dangerous flanking position in the Crimea. It failed, but it makes clear the long-expected German strategy of striking hardest in the south this year in a desperate effort to grab the Caucasus (map, page 24). A full-scale German attack in the Ukraine is almost inevitably in the offing.

Showdown on Martinique

One of the most important repercussions of Madagascar, as far as the United States is concerned, is the showdown that has developed between Vichy and Washington over the French West Indian island of Martinique.

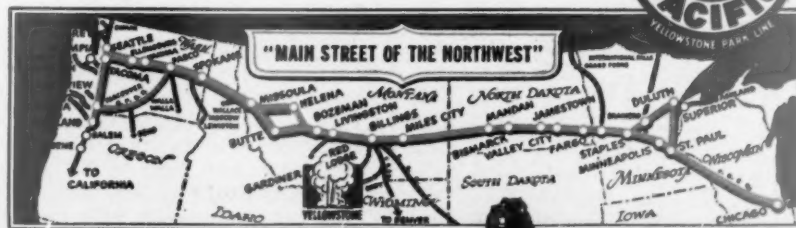
The United States has made four claims upon Vichy: (1) That American troops be placed in control of strategic points in Martinique; (2) that units of the French fleet still tied up at Martinique docks be disarmed; (3) that the 100 or more American planes which have been on the island since the time of the French capitulation be turned back to the United States; and (4) that



The flower that makes battleships disappear

WHEN these bright blue blossoms fall and the boll becomes heavy with its oily seeds, another flax harvest begins. The 42 million gallons of linseed oil from Minnesota, North Dakota and Montana flax fields are eagerly absorbed by the paint industry which in turn furnishes the Navy with camouflage that allows our fighting ships to make the most of the strategy of concealment. This is the flax flower's magic.

An important link between farmers' flax crops and the big linseed processors is the Northern Pacific. Serving well its territory—so rich in the resources of war and peace—has earned this railway a title that perfectly describes its function: "Main Street of the Northwest".



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OUR Designing and Drafting Department, long experienced in the creation and detailing of high precision machines, may be able to render you valuable assistance . . . Concentration of our machine shop on war production enables us to offer a part of our designing facilities for outside work.

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President Manuel Prado of Peru reviews a Marine Corps guard of honor at Annapolis during his whirlwind visit to this country as the guest of the government. After setting the prece-

dent of being the first president of a Latin-American country to address a joint session of Congress, he toured the Ford Willow Run airplane plant and the Chrysler tank factory.

tankers in the island be turned over to Washington shipping officials.

In return for these concessions, Washington agrees to recognize French authority in the island, to safeguard French gold which is still stored there, and to help Martinique out of its present economic difficulties.

This move by Washington is part of a rapidly-developing program of hemisphere defense which includes the speeding up of air communications down both coasts of Latin America, a big ship-pooling arrangement, a revival of the push for trade agreements, the purchase of mounting quantities of Latin American goods (some of which must be stored in the country of origin because of the shortage of cargo space), and a long-term economic planning program which will turn the Western Hemisphere into a vast trading bloc.

With shipping schedules to Latin America cut to a fraction of their normal volume, Washington has authorized two new air routes to Mexico City, and the speedup of services in South America (page 32).

Shipping Pool Meets Delays

The shipping pool is not yet set up. Latin American countries have been invited to put all available tonnage in the pool, which will be operated under the centralized wartime shipping authority in Washington. Some of the countries have offered one or two ships for the pool, but others refuse flatly to participate. The Lloyd Brasileiro Line has even refused to run its ships up the

hazardous East Coast to the United States.

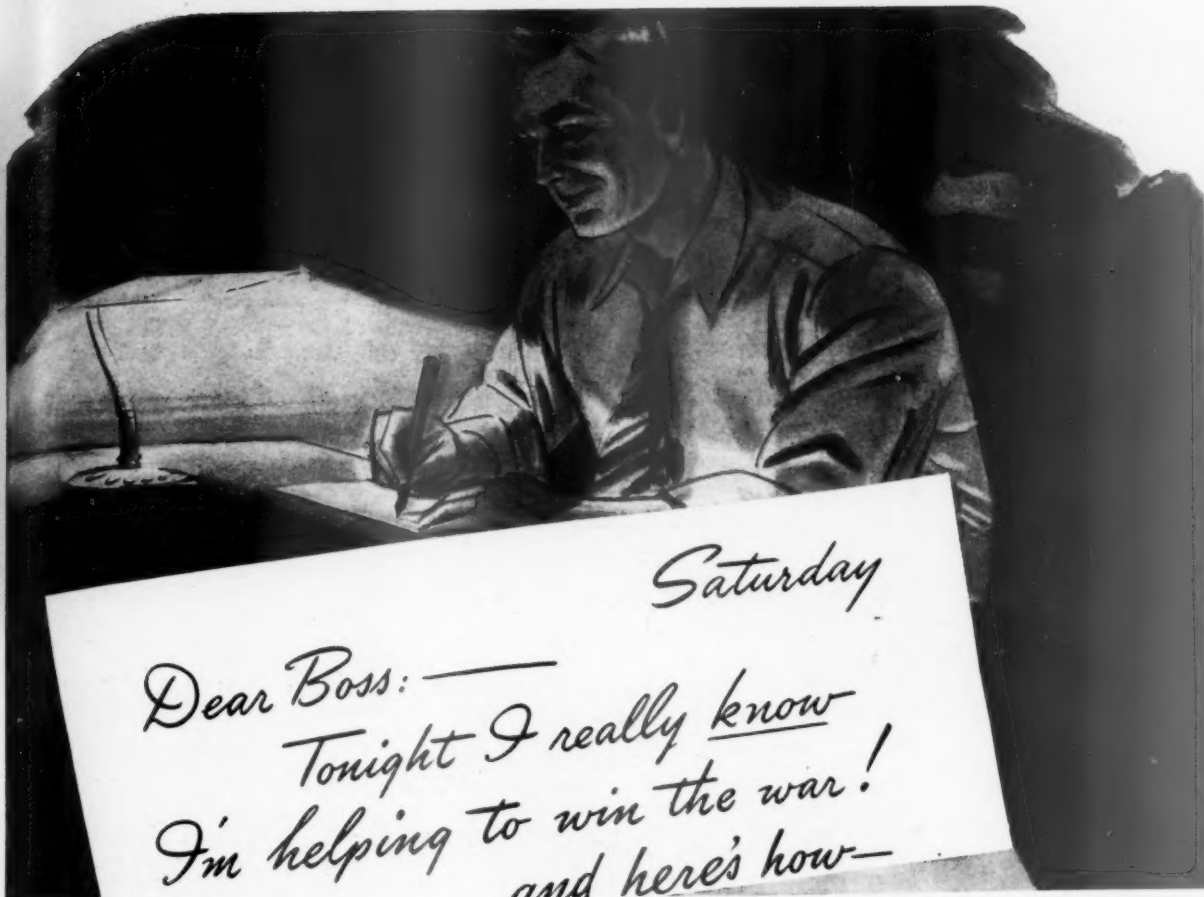
So far the United States has tried to coax Latin American countries into voluntary cooperation. Peru was in the limelight this week, with a new trade agreement and with its President touring the United States as the guest of the government.

Long-Term Planning

This new trade deal with Lima is typical of the long-term plans for economic development which Washington is sponsoring. In return for lowering of import duties on our radios, office equipment, and canned goods, and freezing the present rates on a long list of items including automobiles, the United States has agreed to lower import taxes on sugar, some spices, and long-staple cotton.

But our aid to individual Latin American countries is being worked out in even greater detail than the trade agreement provides. Only a few weeks ago the Commodity Credit Corp. agreed to buy 200,000 bales of cotton from Peru this year for about \$10,000,000. This takes off the Peruvian market the part of the crop normally exported to Europe or Japan and, if there is enough shipping space to deliver it, will provide the United States with some of the long-staple cotton it usually buys from Egypt.

The Metals Reserve Co. and the State Department have just completed a deal with the Mexican government guaranteeing higher prices for a list of badly needed metals—topped by lead, copper,



Saturday


Dear Boss: —
 Tonight I really know
 I'm helping to win the war!
 and here's how—



Long before Pearl Harbor, I realized that I and the 75 other Taylor Field Engineers would play an important part in helping industry meet war needs. But for the last four months I've been keeping a diary—and reading it over tonight it came home to me how much we're really doing to win the war!

So many jobs depend on Taylor instruments—and it takes a man who knows the instruments and how to apply them to each job. Let me give you a few examples:



 You know the _____ Oil Products Company? They make impregnating materials and industrial alcohol. Their problem was the processing of wax and other chemicals to meet immediate Government contract requirements . . . the success of which depends on a rigid cycle of time and temperature control by Taylor instruments. These instruments could not be satisfactorily adjusted by written instructions, and necessitated considerable time and knowledge of both the processing requirements and instrument functions before the required control was established. Manual control without the

instruments would have slowed down the processing and caused mistakes.

Or take the pulp and paper industry. At the _____ Paper Corporation I placed in operation 18 beater roll control systems which maintain proper roll pressures in accordance with a time schedule. At the _____ Bag and Paper Company, I inspected instruments in operation, made adjustments, and recommended new installations. Result in both cases was increased production, improved uniformity.

At the _____ Battery Company I specified instruments for indicating temperature of pitch and lead tanks.



At the _____ Mills, making government cloth, I made a survey of dye plant controls, including adjustment and repair of 3 instruments. At the _____ Canning Factory I installed automatic retort controls for the processing of glass packages. Like every canning factory these days, they are faced with a shortage of tin. Without such controls it would be almost impossible to process glass packages.



But the one thing that impresses me in all my contacts with wartime plants is the enthusiastic welcome I get. I seldom have

any trouble getting to the men I want to see—in fact *they're* the ones who usually want to see me! It sounds like bragging I know, but I honestly feel that today we Taylor people are doing a job! And when you really know you're helping win the war, it's a grand and glorious feeling!

LET YOUR TAYLOR FIELD ENGINEER HELP YOU SPEED WAR PRODUCTION!

There's a Taylor Field Engineer a few hours from your plant. If you're planning installation of new equipment requiring instruments—call him in first! He can show you how to speed production, prevent waste and accidents, improve quality. He can help you train your own men in the vital job of keeping instruments functioning properly. Whether you need new instruments or want to make old ones last longer, write Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada. Makers of the famous "Not 1 but 5" Pulsoscope Controllers.

Taylor

Indicating Recording Controlling

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and LEVEL INSTRUMENTS

★ KEEP ON BUYING U.S. WAR SAVINGS BONDS AND STAMPS ★

Business Week • May 16, 1942

and zinc. The price boost amounts approximately to the normal United States import duty which the Metals Reserve Co., as a government agency, has the wartime power to waive. As a result of this move, new equipment is being installed in several mines and lead production this year is expected to jump to 250,000 tons, from an estimated 150,000 last year. Zinc output may be boosted from 150,000 to 200,000 tons.

It is gradually becoming clear from such deals that all foreign trade is rapidly becoming a virtual government monopoly regulated (1) by production priorities, (2) by shipping priorities which only recently were placed on a special new basis for Latin American shipments, and (3) by the long-term policies of the economic planners in the offices of the Board of Economic Warfare, the State Department, or the Coordinator of Inter-American Affairs.

The program jumped into the limelight again this week when Washington announced that its plan for shipping priorities to Latin America had been revamped to help speed the delivery of much-needed supplies to the 21 Latin American republics.

Good Neighbors First

According to the original priority plan announced in April, BEW ordered that all outstanding and all future export license applications be supplemented with data which would provide a check on location and state of goods licensed for delivery to foreign markets. Insiders made it plain at the time that where export supplies were not adequate to meet the demand, Washington would of course see that neighbors cooperating

with the United Nations would be supplied first.

Now the new plan, which became effective as soon as it was announced on May 7, demands that all goods destined for delivery to any of the American republics bear shipping priority ratings. These ratings, according to their importance in the eyes of the three controlling agencies, bear A, B, C, and D designations, with a special AA reserved for materials "considered of the utmost importance and urgency." Washington intends to handle its Latin American neighbors according to their attitude toward the struggle with the Axis.

More Air Service

Plane lines linking U. S. to Latin America and to United Nations step up schedules, add some important new routes.

The shipping shortage, the submarine campaign, and the need for faster mail communications with the United Nations and Latin America are responsible for a speedup and an enlargement in air services that are just getting under way but will continue through the summer.

• **New Routes to Mexico**—American Airlines has recently been granted permission by the Civil Aeronautics Board to establish two new air routes to Mexico. One will branch from the trunk route of American Airlines at El Paso and the other at Fort Worth-Dallas, and both will converge at Monterrey, Mexico, and continue to Mexico City. American Air-

lines officials declare that work will commence at once on the necessary airports and ground-aid facilities and that regular service to Mexico City will be offered within six months.

This brings to eight the number of air gateways to Latin America, the other six having been set up for varying lengths of time by Pan American Airways.

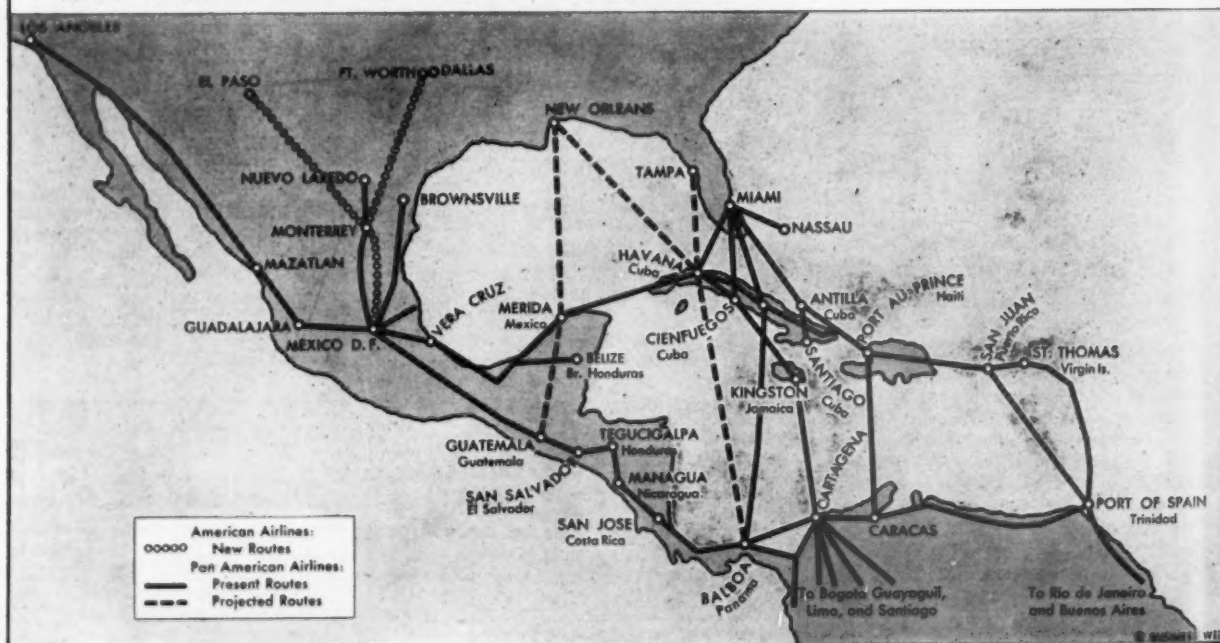
• **Important Stepups**—Over the farflung Latin American routes of this company, three important increases in schedules are being made. Flights across the Caribbean are being increased to 28 a week. Beginning May 8, weekly flights from the Canal Zone to Lima, Peru, were increased from six to seven. And only a few weeks ago the service between Buenos Aires, Argentina, and Santiago, Chile (across the Andes), was increased to a daily schedule.

Not all of the speeding up in air transport schedules is confined to Latin America. Ottawa officials announced this week that Trans-Canada Air Lines have extended regular daily service from Moncton, New Brunswick, to St. John's, Newfoundland, where it will connect with regular transatlantic service to Britain.

• **Transatlantic Service**—Four air services will speed traffic across the Atlantic this summer. Pan American Airways is already flying the North Atlantic to Britain, in addition to maintaining its South Atlantic service by way of Brazil to Africa. British Overseas Airways is also continuing a regular service between Britain and the United States.

Soon to join these two will be American Export Airlines, which will fly its new, luxury flying boats to Europe. K.L.M. (the Dutch Line) continues to

NEW AIRWAYS TO LATIN AMERICA

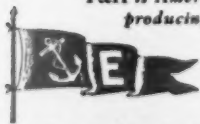




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"Frankly, I hadn't looked for so much difference in overhead cranes. But I learned how to apply measuring stick methods when we bought our last one. I learned how P&H could fit our needs exactly with a crane of standard design. How P&H's greater volume and advanced crane building facilities made possible substantial economies. How P&H electrical equipment meant extra dollars in our pockets. And last, but not least, I learned that P&H delivery promises were honest promises. And that's important in meeting today's expanded war production when time is so important."

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"It's the inspector from the Wages and Hours Division and our payroll records are behind again. Maybe he'll just go away."

But you can't stall the inspectors. They can demand *completed* records in 72 hours; usually want them right away.

Better switch to the Todd Form-Master System that gives you, the inspector, and other State and Federal agencies the required data at once.

How? Form-Master enables any clerk to handpost check stub, payroll sheet and individual earnings record all in one speedy operation. Then the work is complete; records are adequate and accurate. No extra posting to cause delays, errors in copying, overtime or fines. The Form-Master time-and-money-saving features are yours, without costly outlay for equipment.

Instead of dreading inspectors' visits and calls for other reports, Form-Master users can sit back with a welcoming smile. Want more details? Mail the coupon.

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BW-5-16-42



operate a shuttle service between England and Lisbon, Portugal. Since June, 1940, this line has carried 8,391 passengers and 722 tons of mail.

Doubts in Ottawa

Behind-the-scenes conflict is waged over whether to join U. S. and Britain in munitions pool. Manpower plan shapes up.

OTTAWA—An important struggle is going on behind the scenes in Canada. On one side are officials who want Canada to join wholeheartedly in a triangular munitions pool with the United States and the United Kingdom. On the other side are those who fear that Canadian interests will be sacrificed unless Washington and London offer guarantees which, so far, have not been forthcoming.

• **Unfavorable Balance**—The pool plan has been under consideration for several months because of the mounting unfavorable trade balance between the United States and Canada. Last year the Dominion bought nearly \$400,000,000 more of United States goods and raw materials than were sold across the border. So far this year, Canada's import surplus is running at the annual rate of \$500,000,000.

Before the end of the year, Canadian deliveries of aluminum, nickel, and other strategic materials to the United States will increase, but a part of the increased return in dollars must be used to repay the advances made to enlarge plants and buy equipment for them.

• **Invited to Join Board**—This situation had become apparent when London and Washington proposed that Canada join the U. S.-U. K. Munitions Assignments Board. And, when the details of this new triangular arrangement were discussed, Ottawa found that it was being invited also to pool its raw and finished war material and, ultimately, the administration and direction of Canada's whole war production effort.

No decision has been reached yet. Canada wants to retain full control over its production program, but to cooperate in pooling all finished munitions with Britain and the United States. But the decision, when it is made in the next few weeks, will indicate how far Canada and the United States are prepared to go in carrying out much-discussed plans for rationing their economies. If some drastic changes are not made under the pressure of the war emergency, little is likely to be done after the war when there will be less incentive to act.

• **Manpower Control**—Ottawa's manpower plan, established by laws enacted last March, is going into gear within ten days or two weeks and may have

some significance for Washington planners. Moves soon to be made are designed definitely to stabilize manpower and to crack down on the free movement of workers from one place to another.

Ottawa officials don't like any suggestion that their scheme involves a labor "freeze," for the good reason that it frightens workers into advance moves into other jobs. But restrictions to be imposed will keep Canadian workers where they are for urgent war service.

• **How System Will Work**—As the pattern is now drawn, male workers will be barred from seeking any employment except that to which they are assigned by the National Selective Service System. Employers will be barred from hiring male workers other than those assigned to them by the system. Also, employers must make an immediate report on every individual departure from or addition to his payroll, with follow-up monthly totals.

These controls will pick up where a national registration of workers ordered in March leaves off and will give a complete and continuing inventory of manpower. The registration was through an order requiring employers to make returns on their employees to Mar. 31. The inventory will enable Selective Service Director E. M. Little to know where all employed workers are all the time.

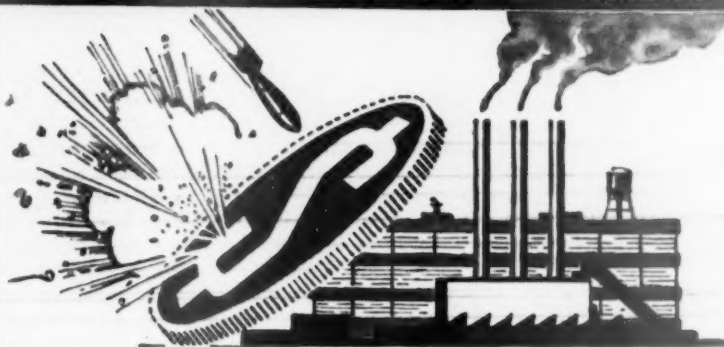
• **Manager and Mechanic**—The curbs now proposed (they are still subject to cabinet sanction) apply to all male workers, managers as well as mechanics. Women are excluded entirely from the present pattern but may be dealt with later.

When an employer wants men he must apply to the local office of Little's organization, which will have hundreds of local offices across the country because Little will incorporate employment offices of industries and commercial firms into his own government chain. This course will be mandatory. The local office will get the men locally if possible, but regionally or nationally if necessary through telegraph calls on other parts of the network.

• **Restricted Industry Plan**—Probes by Little's organization have shown that the restricted industry plan—an original part of the manpower scheme under which men of military age were barred from employment in most civilian industries except by permit—hasn't worked. Employers and job-seekers both ignored it. Little charged last week in Toronto that some employers encouraged abnormal movement of workers in an effort to force him to resort to a blanket freeze.

He is now working out with the Canadian Manufacturers' Assn. a plan for having industrialists estimate future labor needs and insists that this is an essential feature of the whole manpower plan.

GOOD BUSINESS NEWS



MODERN FINANCING FOILS A BLITZ!

Money troubles began to plague the Zee Company* in 1939. Despite normal sales of \$1,966,767 there was a net loss of \$29,111.

This was a setback—but not a fatal one. However, when the \$200,000 credit line, which this company had enjoyed for years was suddenly withdrawn, the temporary embarrassment became a critical situation.

The first quarter of 1940 was desperate. News of the financial situation must have been grapevined around. Soon the creditors were pressing hard. The Company was on the hunt for more adequate financing.

By April, when they contracted for our service, it was acknowledged that without it they would have had to resort to reorganization financing. We immediately made substantial advances against their receivables and the crisis was past.

That year, with about the same volume as in 1939, they showed a small profit. Their working capital was increased from \$183,882 to \$212,971.

In 1941, they really reaped the advantages of the new flexible financing. Year end figures showed:

SALES	NET PROFIT	WORKING CAPITAL
\$2,612,328	\$90,032	\$305,413

On the basis of their current position, doubtless their former financing connections would be glad to make an "about face" and revive the original credit line. The Zee Company, however, prefer the arrangements they now have with Commercial Credit Company.

* * * * *

Though this case demonstrates the value of our service in an emergency, with our OPEN ACCOUNT financing service your receivables and your inventories provide ample cash as you need it, eliminate the uncertainty of sudden changes in your working capital requirements and permit you to operate at capacity. Why not look into this? For complete information write for booklet "ANCHOR TO WINDWARD." Address Dept. 1204

*A fictitious name, but the facts and figures, taken from our files, can be verified.

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"NON-NOTIFICATION" OPEN ACCOUNT FINANCING

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Boston New York Chicago San Francisco Los Angeles Portland, Ore.

CAPITAL AND SURPLUS MORE THAN \$65,000,000

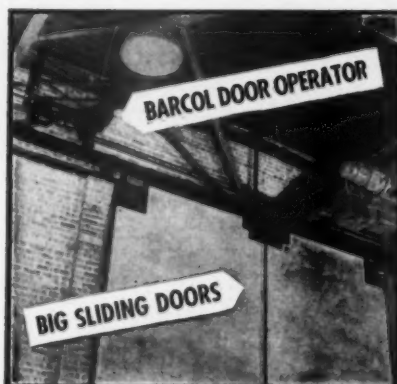


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LITTLE."**

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... EFFICIENTLY!**

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MEAN MINIMUM UPKEEP**

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LABOR & MANAGEMENT

M. of M. Gains

Union security drive is advanced another step as U. S. Steel accepts NWLB decision on maintenance of membership.

As L. H. Korndorff, president of the Federal Shipbuilding & Dry Dock Co., and C.I.O. representatives met in Kearny, N. J., this week to spell out the National War Labor Board's directives in a contract to which they would both bind themselves (BW—May 2'42, p72), one important aspect of wartime labor relations became more predictable. And, as in 1937, it was again the United States Steel Corp. which was pointing up the trend.

• Earlier Milestone—Five years ago, Big

Steel signed an agreement with the C.I.O., then in its swaddling clothes, giving it one of its early symbols of recognition from a great and powerful corporation. Taking such action proved to be an assurance that the industrial union infant was going to grow into a giant.

With the country now at war, and with an Administration anti-inflation program calling for wage stabilization making the future of unionism uncertain, the acceptance by U. S. Steel of NWLB's "maintenance of membership" order for its Federal subsidiary assumes unusual importance.

It is reasonable to expect that the steel corporation's decision to "take" an NWLB ruling which provides that union members must stay union members, or at least pay their dues in order to keep their jobs, will be followed by other similar NWLB orders. Employer



MESSAGE FROM BRITAIN

Sir Walter Citrine, conservative leader of the British labor movement, was met by William Collins (left), representative of the American Federation of Labor, when he arrived last Sunday by clipper. Citrine's main job here is to meet with A.F.L. chiefs and dispel their distrust of Russia. American labor officials have felt that too close cooperation with the

Soviets would give native Communists an opportunity to influence unduly U. S. unions. Citrine is going to tell them that such has not been the case in England and need not be the case here. If he can really sell American labor leaders the idea, look for the formation of an American labor committee which will send a delegation of union heads to the Soviet Union and bring a group of Russian unionists here on a good-will mission.



Scorching Heat or Freezing Cold... wherever goods of war must go... Protect Them with FIBREEN

Planes, tanks, guns, trucks, ammunition, food, clothing, medical supplies and vital repair parts that pour from American production lines, *may see service from the arctic circle to the equator.* They may be weeks at sea—stand long outside exposure to freezing cold, to water, to snow and ice, or steaming tropical heat, and destructive sand, dust and dirt.

But when the time comes to go into action, these materials of war must be undamaged—ready.

That's why protective packing is of such major importance now. And that's where FIBREEN is doing an outstanding job in the nation's war program. This rugged paper does its job under any temperature—is unbelievably tough,

and is completely proof against moisture, wind and dirt.

It's reenforced with two crossed layers of wire-strong, closely spaced fibres, embedded with two layers of special asphalt between two layers of clean, strong kraft. FIBREEN is pliable and easy to handle—a perfect wrapping or lining material—a superior, low-cost replacement for fabrics and other materials now impossible to get.

FIBREEN is being supplied for the wartime needs of the nation. If you are making an essential war product—if unfailing protection in shipment and storage is a problem—we invite your inquiry. Write for samples. Tell us what you make and how you pack it. Our packing experts are ready to help you, without obligation.

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response, for the most part, will be to follow Big Steel.

• **Touchy Situation**—While United States Steel's board of directors pondered NWLB's order, deciding whether to accept or reject it, NWLB was on the anxious seat. There was always the possibility of large-scale defiance by both industry and labor if Big Steel said, "No." To make its position as a voluntary agency even more precarious, the General Motors Corp. made the front pages last week with an announcement of refusal to comply with a board directive on the knotty how-much-pay-for-Sunday-work issue.

But the air cleared by last weekend when G.M. reconsidered its stand, apologized, through its president, Charles E. Wilson, for asserting that the board's ruling had been based on ex parte procedure, and was followed by U. S. Steel's acceptance "under the compulsion of war" of the Federal award.

• **Series of Hurdles**—There now have been five important challenges to NWLB's power to handle wartime labor disputes, and all of them have been met with such firmness that the board's authority presently seems more secure than ever. The first challenge came in the Toledo, Peoria & Western Railroad case, and when President George P. McNear, Jr., refused to obey an order to arbitrate, his railroad was seized on orders from the President and is being operated by the government (BW—Mar. 28 '42, p15).

Three other challenges involved "maintenance of membership" rulings affecting Walker-Turner, International Harvester, and Federal Shipbuilding. Each company showed reluctance at compliance with board's order but submitted after some hesitation. G.M., protesting the board's procedure and rejecting its award on Sunday pay—a ruling which calls for double-time rates for Sunday work only when it is the seventh day and which will be in effect only during the interim period until a new contract between the company and the union is signed (BW—May 2 '42, p72)—was the fifth challenge to be effectively beaten back.

• **Point of Policy**—It is clear from NWLB's record that it will continue to grant maintenance of membership or other union security devices to unions whose existence it considers to be threatened by the company's position, by the President's anti-inflation program under which the union is induced to forego substantial wage increases, or by the labor pledge not to strike.

While it is a fact that employer members on the board have dissented in every maintenance of membership award, they have, in their minority opinion in the Federal Shipbuilding case, offered clear support for a maintenance of membership order in which individual union members would have the

right to decide whether they want to be bound by it before such a contract is signed. Similarly, while the unions which have come before the board have usually sought a union shop, the labor members of the board have not held out for such a determination. Public members, while rejecting employer pleadings for the open shop where the evidence demonstrated what they took to be the need for union protection, have shown no disposition to accept union shop demands.

• **Legislation Less Likely**—As the result of industry's acceptance of maintenance of membership awards, congressional action on labor relations seems less likely now than at any time since Pearl Harbor. An outbreak of important strikes, or the decision of a large section of industry to defy NWLB can, of course, change the situation overnight. Neither seems immediately probable.

The four Little Steel companies which have cases involving wage increases and the union shop now pending before the board (BW—Mar. 14 '42, p84) and which expect to be ordered into some form of maintenance of membership agreement, were disheartened by the International Harvester, U. S. Steel, and G.M. decisions. These companies' "going along" makes it more difficult for others to stand out against a board order—a course of action which at least one of the Little Steel companies was considering.

A Pay Issue Cools

Equalization of tool and die wages in Detroit loses urgency as workers fail to migrate from auto plants to job shops.

At least one of Detroit's wage problems has lost its urgency. Equalization of pay between the tool and die departments of the automobile plants and the independent job shops of the tool and die industry (BW—Feb. 28 '42, p62) is now a slumbering issue.

• **A Bit of History**—Traditionally, the automobile companies pay less than the job shops for tool and die work. (Motor-plant shops now pay \$1.25 to \$1.40 an hour, on the average, whereas the job shops start with a hiring rate close to \$1.50.) In normal times, the steadier employment afforded by the auto industry accounts for the differential, but the defense program—heaping work on all shops—inspired the union to press for equalization.

The threat of mass migration from corporation plants to independent shops was raised. Sidney Hillman investigated in February at the behest of the United Auto Workers. President C. E. Wilson of General Motors protested for the in-



WHAT are sewing machines doing to help win the Battle of Production? PLENTY! They are the tools that help make the uniforms . . . tents . . . packs . . . bed rolls . . . tarpaulins . . . parachutes . . . powder bags . . . knapsacks . . . and dozens of other military articles incorporating MACHINE SEWED SEAMS.

For best production rates, lowest costs, and dependable quality where machine sewing is required, thousands of manufacturers engaged in war work, now look to UNION SPECIAL — world's largest builder of special industrial sewing equipment.

Industrial Sewing Machines For War Production

UNION SPECIAL MACHINE CO., 408 N. Franklin St., Chicago, Ill.

Please send me copies of the bulletins I have checked below.

- ☐ "Seams and Stitches"
- ☐ "Modern Machines for Producing Service Garments"
- ☐ "Machines for Seaming Canvas Goods"
- ☐ "How to Close Bags, Fabric or Paper Containers, etc."

Name _____

Company _____

Address _____

A Couple of "R"



▲ This Allis-Chalmers Craftsman is slotting a turbine rotor—just one among thousands of precision jobs on each huge turbo-generator

Allis-Chalmers Employs One...Helps Feed the Other!

Allis-Chalmers craftsmen create precision machines weighing tons to power U.S.A. industry—help make farm equipment to produce better milk for American babies.

BEING "FUSSY" is our tradition. We worry over 1/1000 of an inch.

It results in better turbines...in better equipment for dairy farms.

In fact, it brings expert craftsmanship to more than 1600 kinds of products—products used in *every* major industry.

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Our engineers, working with your recommend equipment to work harmoniously with *all* your other machines.

Today, this type of cooperation is important than ever. Let's talk it

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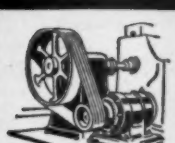
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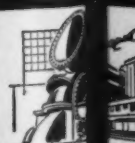
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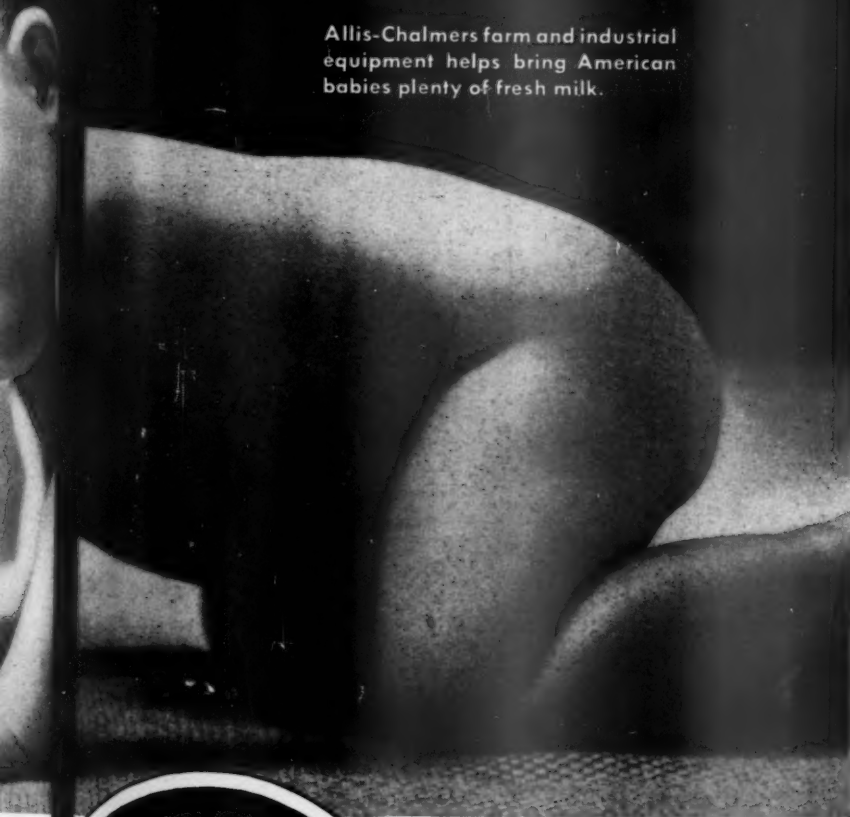
**ENGINES AND
CONDENSERS**



**CENTRIFUGAL
PUMPS**

"Budgets"

Allis-Chalmers farm and industrial equipment helps bring American babies plenty of fresh milk.



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Low-current Weld-O-Tron unit being used to weld thin sections of high nickel steel on blading for huge steam turbines built by Allis-Chalmers.

Allis-Chalmers equipment helps turn out fine steel used in making precision surgical instruments.



VICTORY NEWS

New Electrifugal—Allis-Chalmers' new 25-H.P. Electrifugal Pump extends the advantages of more efficient performance, lower pumping cost, and 33% space savings over a full range of sizes now available from 1/2 to 25 horsepower.

All Allis-Chalmers Electrifugal Pump models are built as one unit, with motor and shaft in one housing. They have only 3 section-fits as compared with 5 or more for old-style pumps. *Important data on these pumps is in new Bulletin B6018B.*



Speedy, New Net Tenders (similar to the one above) have joined the U. S. Fleet. These 150-foot Diesel-powered boats tend the anti-submarine nets strung across our harbors. Aboard these vessels is Allis-Chalmers equipment—pumps, generators, motors, control and propulsion equipment.

Electric Alloy Steels are giving U.S. fighting forces harder, more effective weapons than the best armament steels in existence during World War I. The nation's electric furnaces are producing steel on a 24-hour-a-day basis. Working hand in hand with many electric furnaces are Allis-Chalmers transformers, equipped with motor-operated tap changers regulating voltage of the electrodes.

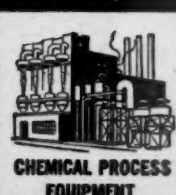
War Demands Wood to relieve the demand on critical metals. To meet the heaviest demand in history for forest products, all available sawmills and equipment are pressed into service.

In addition to many new installations, Allis-Chalmers, the world's largest manufacturer of sawmill equipment, is being called upon to supply many accessories, indicating that old mills are rapidly going back into service.

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And Engineering Cooperation

ENTRIFUGAL
PUMPS





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★ Spring material must be as near perfect as possible. That's why Muehlhausen engineers use the Metallograph, illustrated above—to detect minute flaws.

Wire used in the Muehlhausen plant must undergo this test. A section of wire is mounted in a plastic mold and then polished. This specimen mount is placed in the Metallograph and photographed under high magnification. The developed print reveals the slightest interior fissure or surface crack.

This is one of many tests made by Muehlhausen engineers to insure quality. Check with Muehlhausen on the design of any type spring—compression, extension, torsion or flat—hot or cold formed.

FREE—TWO NEW FOLDERS!

- ☐ New Die Spring Folder No. 45
- ☐ Springs for Armament

Write to Muehlhausen Spring Corporation, 775 Michigan Avenue, Logansport, Indiana.



Problematician Neblett Tackles a Problem

Beginning May 18 in the International Harvester Co.'s eight plants, both A.F.L. and C.I.O. union members in good standing will vote on the question:

"Do you favor the following clause in the contract between the company and the union which says: 'All employees who are now members of the union in good standing or who may in the future become members will be required as a condition of employment with the company to maintain their membership in good standing during the life of the contract?'"

The life of the contract is the duration of the war.

If the vote is in the affirmative, the National War Labor Board's decision (BW—Apr. 18'42, p7) provides that the company shall accept a union maintenance-of-membership clause. Novel feature of this referendum is its conduct under WLB's auspices.

The Labor Board official in charge of arrangements is Thomas Fair Neblett, principal mediation officer. This soft-spoken son of a line of Southern Methodist ministers is rising rapidly in the field of labor relations. He came out of Dixie seven years ago with a master's degree in labor legislation from Louisiana State University. He put theory to work as a field examiner of the National Labor Relations Board. In 1940 he joined John Steelman's Conciliation Service. Last fall he went to the National Defense Mediation Board and the record he established as a trouble-shooter brought him promotion to his job



with the National War Labor Board.

Neblett says he is a problematician. He loves to be in the thick of the talk over issues but he's death against arguments. R. F. Black, president of White Motor Co., is quoted as saying that "Neblett taught me a lot about conciliation."

When the going got tough in the International Harvester case, Neblett told the boys: "I can't help you win your argument but I can help you solve your problem." So wherever Neblett goes it's "problems, gentlemen, not arguments."

dusty that the automotive tool rooms had been able to hire all the help that was needed. No agreement was reached.

● **Restraining Factors**—Later, the larger auto companies offered a general 10¢-an-hour increase to skilled tool and die workers, but refused a union demand for 15¢. Since February, events have favored the motor-industry side of the argument. Most important: No mass migration to the independents has occurred. Moreover, the union has had other worries, its main concern being a new G.M. contract to replace the one expired this week.

Operating against any large-scale movement of workers from the auto shops to the job shops is the fact that machine equipment in most instances is already well manned for the job in hand. In both classes of shops, jobs of the type requiring thousands of men in the aggregate are nearing completion, thus freeing skill for new tasks. In the near future, there will be a bottleneck in cutting tools, but the bulk of that

job is going to fall on cutting tool manufacturers without disturbing greatly the balance between automotive and independent tool and die shops.

● **Upgrading Still a Problem**—If the union gets around to pressing the pay equalization question again, then WPB may have to step in, but right now the controversy is quiescent. However, there is a related problem which has not lost its urgency: the upgrading of workers in the tool and die shops.

Not satisfied with the extent to which upgrading has been pushed in the independent shops, WPB has asked the Automotive Tool & Die Assn. to report on results to date and what may be expected in the future. The job shops now work 12 to 16 hours a day. If upgrading is pushed to the point where the independent shops are working 20 to 24 hours a day (original objective of the plan), then jobs opened by the new shifts may beckon automotive employees in sufficient number to revive the pay equalization issue.

Linked to Earth...He "Flies"

300 Miles an Hour!



When he's "under the hood" in a Link Instrument & Radio Pilot Trainer, the student at the controls acts just as if he were in actual flight over fog-bound or blacked-out terrain. He's given a flight problem . . . to take his ship from A to B. He climbs into the "office" of what looks and acts like a fast airplane, yet is fastened securely to terra firma. Pulling down the hood, this student pilot has to rely on a panel of flight instruments and on his radio earphones to guide him swiftly and surely to his destination . . . at 300 miles an hour sitting still!

On the instructor's desk, a few feet away, the student's "flight path" is automatically recorded. It provides a permanent, impartial report on his success or failure in solving the problems of navigating across land or sea, climbing over mountain ranges or thunderheads, circling over an objective, or making a blind "landing" at his destination.



To keep Uncle Sam's airmen learning in Link Trainers, several Mallory precision products are used. Potentiometers to control



Flying Cadet receiving instruction in Link Trainer

OFFICIAL PHOTOGRAPH, U. S. ARMY AIR CORPS

the volume of simulated radio signals —themselves selected by Mallory selector switches. Rheostats for cockpit lights; pilot light assemblies; and push button switches to control signal lights. Electrolytic condensers for filter circuits, to keep out stray noise. Phone plugs and jacks for all microphones and head phones. Electrical contacts to actuate the automatic keying device that produces various "keyed" signals . . . Thus the sensitivity and service life of communications devices and navigating instruments in the Link Trainer . . . just as in many actual military and commercial airplanes . . . depend on Mallory parts.

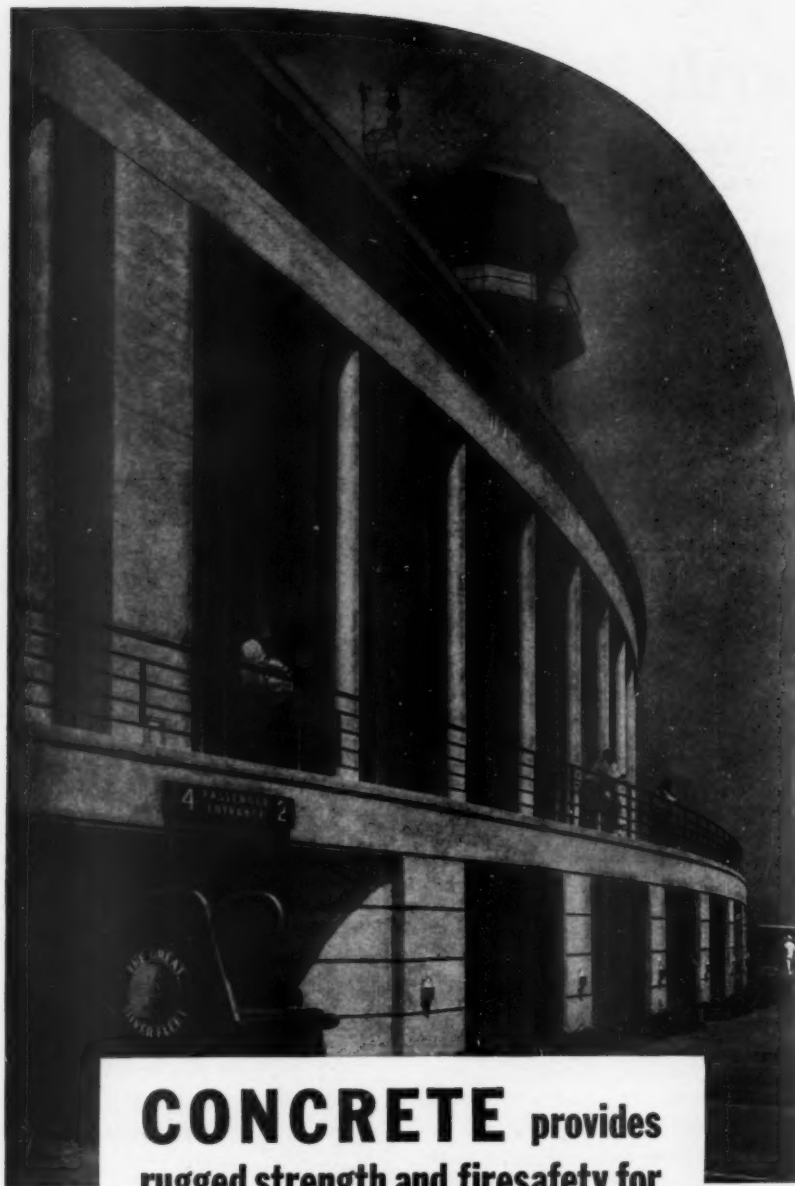
Yet electronic products are only a fraction of Mallory's contribution to the aviation industry alone. Mallory standardized resistance welding electrodes speed the assembly of

planes and aircraft parts. Mallory electrical contacts actuate retractable landing gear, variable pitch propellers, bomb releases and many automatic devices. Mallosil bearings, bushings and connecting rod pins carry heavier horsepower loads. Rectostarters speed testing of aircraft electrical equipment, starting of "green" engines and charging of airplane batteries.

Mallory's total effort in this total war extends into practically every branch of the fighting services and of the industries backing up our fighters. Also, today's many-sided developments by Mallory research engineers for martial needs will have significant peacetime applications in the future . . . significant, quite likely, in your own business. P. R. Mallory & Co., Inc., Indianapolis, Indiana. Cable "Pelmallo".

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Next time in Washington look twice at National Airport's new administration building. It's Architectural Concrete. Methods developed in erecting such all-concrete buildings are today giving America sturdier, more fire-resistant war structures... often in record time!

With architectural concrete, roofs and framing are united with walls and floors in a rigid unit having *structural continuity* combined with *fire resistance*—the prime weapons for combating the ravages of fires and explosions.

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using concrete, and transportation is saved since most concrete materials are found near-by.

Our technical staff is at the service of engineers, architects and contractors on all types of war construction.

● Washington National Airport administration building. W. E. Reynolds, commissioner of public buildings; Louis A. Simon, supervising architect; Howard L. Cheney, consulting architect; Neil A. Mallick, supervising engineer; John McShain, contractor.

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Dept. 5c-12, 33 W. Grand Ave., Chicago, Ill.

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**BUY WAR SAVINGS BONDS
SUPPORT THE RED CROSS**

Heil Complies

Milwaukee company, one of ten cited for discrimination in hiring, advises government it draws no creed, color lines.

The Heil Co., Milwaukee, one of the ten firms recently ordered to cease discriminating against available workers because of their race or religion (BW—Apr. 18'42, p7), is the first to advise the President's Committee on Fair Employment Practice of action taken to comply.

● **Letters Sent Out**—In the report of the Heil Co. to the President's committee, C. T. Hibner, works manager, submitted copies of letters sent to the personnel manager and the comptroller of the company, to three branch offices of the United States Employment Service which have handled Heil job replacements, and to 17 schools and employment agencies.

To the agencies and schools, Hibner wrote: "Kindly be advised that whenever your agency is used as a means of employing help for the Heil Co. that all requests for help are to be filled on the basis of ability, regardless of race, color, creed or national origin." Similar instructions were sent to the company hiring officials.

In his report to the committee, Hibner denied that the Heil Co. has ever discriminated against workers because of their race or religion. Moreover, the company's past and present intentions are to comply with the terms of the executive order banning such discrimination, he said.

● **Monthly Record**—In keeping with the directive of the committee, Hibner will submit a monthly record which sets down the number and classification of new workers employed, and the number of Negroes included in this number and classification of the work for which they were employed.

MEMBERS GET THE RAISE

The Aluminum Industries, Inc., of Cincinnati, refused to give C.I.O.'s Aluminum Workers' Union a union shop. So the union offered the counter proposal that a 7¢-an-hour pay boost, to which the company had agreed, should be paid only to union members.

Because it was an arrangement which would induce the union to withdraw its union-shop demand, the company signed a contract limiting the pay hike to members. The result was that every employee eligible for union membership who was not a member in good standing immediately became one.

The wage dividend is retroactive to Mar. 1, and will go to about 700 workers engaged in war production.

MARKETING

Retailers Serene

New credit rules require revisions of procedure, but few protests are heard. Customers compelled to toe the line.

The Federal Reserve Board's limitation on "open" or charge accounts (BW—May 9 '42, p7), along with tightening of instalment credit terms for the third time, are being received with hardly a ripple of retailer protest.

• **Down Payments**—Initially retailers thundered loudly against the prospects of shrunken charge accounts, claiming that their average life was only 61 days, not enough to add greatly to inflation, that charge accounts were a traditional convenience, and that curbs couldn't effectively be applied without upsetting the apple cart. What really bothered the retailers, however, was the possibility that the Reserve Board might make a down payment a necessary prerequisite to a charge account.

Down payments escaped in the final regulations, so the retailers are happy. Hardships will be in order, of course, but open credit at least has been reprieved from the down-payment death sentence.

• **How It Works Out**—As they now stand, the rules specify that open credit bills must be cleared up by the 10th of the second calendar month following purchase (in other words, within 40 to 70 days. If the customer doesn't pay up, he can't buy any "listed" articles (see table) on credit until the old bills are cleared. Such clearing may be accomplished either by immediate full payment, or by converting the outstanding debt into a special six-month instalment account.

Meanwhile general instalment credit has been limited to 12 months, the down payment has been boosted to 33 1/3%, and the list of items that are subject to control has been greatly extended over the initial batch (BW—Aug. 30 '41, p24).

• **Other Considerations**—Along with this tightening, five subsidiary considerations appear in the rules:

- (1) Single-payment loans of \$1,500 or less are limited to 90 days.
- (2) If such a loan applies to a "listed" article costing \$15 or more, a down payment must be made.
- (3) If the loan isn't paid in 90 days, it must be converted into an instalment account.
- (4) No instalment payments less than \$1.25 a week are permissible.
- (5) Exemption from down payments



What would it cost to replace Joe?

JOE's more than just a good executive. He's been around a long time, he knows all the short cuts — and his memory holds facts and figures like fly-paper.

People just naturally turn to Joe in any kind of a jam. Lately, they've needed him oftener. He's had more questions to answer, more quick decisions to make. His load's a lot heavier—but Joe keeps going — somehow.

What would happen if Joe caved in tomorrow? What would it cost

your firm—in cash and confusion?

Tense times like these high-light the fact that brains are often more important than buildings — and harder to replace. Losing a key man can easily disrupt a business.

New England Mutual has helped many businesses bridge such situations with a practical, time-proved plan of "key-man" insurance. Ask any of our *Advanced Underwriters* to explain this specialized coverage. Or write to George L. Hunt, Vice-President.

New England Mutual Life Insurance Company of Boston

George Willard Smith, President

Agencies in Principal Cities Coast to Coast

THE FIRST MUTUAL LIFE INSURANCE COMPANY CHARTERED IN AMERICA—1825

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- * American Locomotive Co.
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- * Bethlehem Steel
- * Bridgeport Brass Co.
- * Chevrolet Motor Co.
- * Crane Co.
- * Firestone Tire & Rubber Co.
- * Goodyear-Zeppelin Corp.
- * Gulf Refining Co.
- * Monsanto Chemical Co.
- * National Tube Co.
- * Nichols Copper Co.
- * Sherwin-Williams Co.
- * Standard Oil Co.
- * Westinghouse El. Mfg. Co.
- * White Motor Co.
- * Worthington Pump & Mach. Co.

(*) Designates from 2 to 21 contracts.)

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on instalment accounts maturing in 90 days is repealed.

Actually the curbs (especially on charge accounts) have one major advantage to retailers in that they force tardy customers to toe the line. Nor will this forced-payment process trap those unfortunates who got into hock through sheer poverty. For even if they can't settle up their debts, the rules permit them to buy unlisted articles on credit. And this unlisted batch includes most of life's bare essentials.

• **Credit Procedure**—Some revision of credit procedure is necessary among the bigger stores, however. For one thing, "revolving" accounts (allowing the customer to keep two-thirds of his credit outstanding on a continuous basis) are banned. Additionally, ultra-fancy stores which allowed patrons to settle up once or twice a year (as dividend receipts rolled in) will now be obliged to demand payment in 40 to 70 days, or put

the customers on the six-month payment plan.

Finally, the regulations will mean a revision of bookkeeping. It's been the habit of most stores to start tabulating bills some three or four days before the end of the month in order to avoid a billing "peak" on the last day. Now, however, the bills must include the whole calendar month—not merely 27 or 28 days of it. That'll mean more clerical help.

• **Enforcement**—Policing the curbs isn't expected to be any headache. The big stores will obey voluntarily. Competitive violations are expected to be too minor to bother about. But should they grow to any real size, local Better Business Bureaus, merchants' associations, and similar private bodies can start squawking. As a last resort, the Federal Reserve Board could revoke a store's license. These licenses are now issued automatically in blanket form.

Where New Credit Curbs Apply

The items below are called "listed" articles in the Federal Reserve Board's new credit curbs. Purchasers who default on their charge accounts may not buy them on open credit until the old debts are settled up. Furthermore, these articles are now subject to instalment credit restrictions.

Group A—Minimum Instalment Down Payment of One-Third; 12 Months' Maximum Maturity:

Air conditioners (room units and home systems)
Aircraft and gliders
Attic ventilating fans
Auto batteries and accessories
Auto tires and tubes for passenger cars
Bedding, blankets, curtains, draperies, household linen, towels
Bicycles
Binoculars, field glasses, opera glasses, hand telescopes
Boats and inboard and outboard motors (non-commercial)
Clocks (for either household or personal use)
Cooking stoves and ranges (domestic)
Dishwashers (electric domestic)
Electric appliances (domestic)
Floor coverings and materials
Furnaces and heating units (domestic)
Heating stoves and space heaters (domestic)
Ironers (domestic)
Jewelry (both precious stones and costume jewelry)
Lamps (household)
Lawn mowers, edgers, trimmers (including power driven)
Lighting fixtures (household)
Luggage, purses, umbrellas, handbags, toilet cases
Motion picture cameras, projectors and lenses for less than 35 mm.; still cameras, projectors, lenses, shutters, enlargers
Musical instruments
Organs (household electric)
Plumbing and sanitary fixtures (domestic)

Portable lights and flood-lighting equipment (household)
Radios, phonographs, and combinations
Refrigerators (mechanical, or less than 12 cu. ft. capacity)
Sewing machines
Silverware (flatware, hollow ware, plated, solid)
Sporting equipment, games
Suction cleaners, carpet sweepers
Tableware and kitchenware
Washing machines (domestic)
Watches
Water heaters
Water pumps
Wearing apparel and furs (non-military)
Yard goods

Group B—Minimum Instalment Down Payment of 20%; 12 Months' Maximum Maturity:

Furniture, ice refrigerators, bed springs, mattresses
Pianos

Group C—12 Months' Maximum Maturity:

Materials and services in connection with repairs, alterations or improvements on real property in connection with existing structures (other than non-residential), provided the deferred balance does not exceed \$1,500

Group D—Minimum Instalment Down Payment of One-Third; 15 Months' Maximum Maturity:

Autos and taxis
Motorcycles
Used furniture



"Cover-to-cover, the facts indicate that it is one of the most *USEFUL* magazines in America today. Wherever you find it, you find a business man . . . well informed."

ADVERTISEMENT
BUSINESS PAPERS

Bottleneck Breaker

Stepped-up tempo of wartime business (plus increasing lack of trained help) has brought furrows to the brow of many an office manager. In numerous cases the jam-up of work is due to use of inefficient, unrelated business stationery — forms, letterheads, communication sheets, invoices, statements, etc.

Best way to open up such a bottleneck is to call in a qualified printer to work out a plan for *all* office printing. Using a most remarkable portfolio, the Nekoosa Bond Plan Book, he will develop a "blue-print" that will make business stationery more efficient, more uniform, more effective. And, in some cases, reduce costs by combining runs.



KEY TO BETTER STATIONERY
Book Suggests Improvements, Savings

There is a printer in your city who has the Nekoosa Plan Book. He'll gladly go through it with you, analyze your office printing and submit a plan. No obligation on your part. Call him today.

► **Paper Important.** Essential to the success of your plan is proper paper selection. The printer will suggest Nekoosa Bond — the paper that's "Pre-Tested from the Start," — because he knows it has everything it takes for top performance in your office and his pressroom. It ranks A-plus in strength, opacity, surface and appearance.

It's amazing how much paper is used in war. Nekoosa-Edwards mills are producing tons and tons of specialty papers, all the government asks for. But despite wartime demands, there's no skimping on Nekoosa Business Papers' quality. They continue outstanding in their fields.



One of the Pre-Tested Business Papers manufactured by the Nekoosa-Edwards Paper Company, Port Edwards, Wisconsin. Companion papers are JOHN EDWARDS BOND, NEKOOSA MIMCO BOND, NEKOOSA DUPLICATION BOND and NEKOOSA LEDGER.

Vitamins on Label

Food and drug products that boast special dietary properties must now tell the public what they are and how they work.

May 18 is the second major labeling deadline that the food and drug industries have had to face in two years. First deadline, which, after several extensions, confronted the industry on July 1, 1940, saw new labels placed on virtually every food and drug product—the result of the Food, Drug, and Cosmetic Act of June 25, 1938. The second means new labels for every food or drug product which is advertised as having any special vitamin, mineral, or other dietary property beyond what the average person would find in a normal diet of ordinary food.

• **Many Products Affected**—Few people outside the food and drug industries realize how much ground this covers, but the following list is illustrative of the types of products that will wear new labels within the next few days: All the vitamin and mineral capsules, concentrates, tablets, and liquids which millions of Americans take daily to supplement their diets; all fortified or enriched foods, including enriched bread, flour, oleomargarine, breakfast cereals, and even candy; the so-called "health foods," and all infant foods and products specially prepared for diabetics, pregnant or lactating women, and people suffering from allergies, overweight, or underweight.

This major upheaval in food and drug labeling results from the promulgation by the Federal Security Administration last Nov. 18 of a comprehensive set of rules governing what must be told about every product claiming to have special dietary properties. FSA acted on behalf of its subsidiary agency, the Food and Drug Administration, which in turn derives the power to establish this superstructure of labeling from a simple and innocuous-looking sentence in the food section of the new federal law. This sentence simply provides that FDA can issue, after hearings, special rules for the labeling of foods represented as having unusual dietary properties.

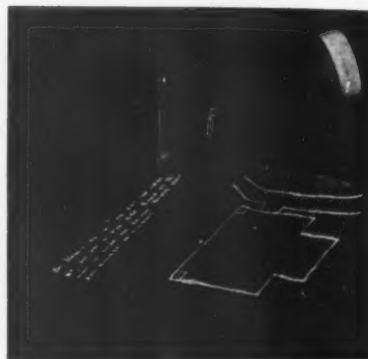
• **Overlooked**—When Congress passed the law, most food men paid little attention to this section on the theory that it was intended only to curb claims made for the many fake "health" foods that are foisted on the U. S. public by food faddists. Drug men paid no attention to the section. Since it was in the food part of the law, they thought it would have no application to their big sellers—the vitamin and mineral concentrates.

Some drug men still don't believe the regulations are applicable to their products, and negotiations are in progress



BLACK MAGIC

A letter under ordinary illumination (above) reveals nothing unusual, but when placed under a Westinghouse black light ultraviolet lamp at the police department of Bloomfield, N. J., out pops a secret message and plan which were inscribed with invisible fluorescent ink.



now between FDA and the pharmaceutical industry, which, if they turn out the way the industry wants them to, would exclude from the purview of the regulations all pharmaceutical vitamin and mineral preparations, products designed to be sold on doctors' prescriptions.

• **Resigned to Regulation**—At first, industry men were afraid that the labeling regulations would de-glamorize their dietary products which had been built up at a great advertising cost. Contrarywise, FDA argued that products which were based on some legitimate dietary principle would gain from labels that explained to the layman in simple terms just what he was getting for his money. By and large, industry men, who believe their products have real dietary merit, have become resigned to FDA's view.

The reason the pharmaceutical industry wants its vitamin and mineral preparations exempted from the regulations

THE HAND CAN BE NO SURE

THAN THE EYE

Light that helps win Fights



● The American airman is no more effective than the plane he pilots.

The plane can't be any better than its builders' ability to see.

That's why it is not enough for busy factories to have the better lighting of

fluorescent lamps — it's time to insist on the best in fluorescent.

Look at Hygrade Fluorescent Lamps and you'll see yourself that they have a smoother coating, which gives more even light.

If your experience is like that of others, you'll find they provide more lumens per watt.

Examine them, and you'll see they're more even in color, every lamp alike.

Burn them, and you'll find they stay "bright to the last inch," with dark end-rings no longer a serious problem.

Ask Hygrade users and you'll discover that they last longer—fewer pauses to change lamps as well as fewer lamps to buy per month.

Thus you can improve fluorescent lighting just by changing to Hygrade Lamps.

Top results come when you start with lighting equipment that is unit-engineered by Hygrade — lamp, fixture, starter and ballast all of equally high quality, all designed to work together.

Because only the best lighting will do now, try Hygrade Lamps in present systems—or ask the nearest Hygrade dealer about Hygrade packaged lighting units. Installed without costly rewiring, they make a quick change-over possible at small outlay.



"BRIGHT TO THE LAST INCH"

Here are two fluorescent lamps that have seen approximately the same amount of service. Note how freedom from dark end-bands in the Hygrade Lamp provides light from the full length of the tube. Rigid quality control that keeps them "bright to the last inch" over longer periods is one reason why they represent "fluorescent at its finest."



HYGRADE SYLVANIA

CORPORATION

Salem, Mass.

Hygrade Incandescent Lamps, Fluorescent Lamps, Fixtures and Accessories, Sylvania Radio Tubes

CHECK LIST No. 9

... of recent discoveries for solving war-time problems

- **Substitutes for Imported Waxes** such as Montan wax, Ozokerite, Japan wax, etc., now available. (114)
- **Protect Aluminum** with new chemical against corrosion at low temperatures where condensation is possible. (111)
- **Non-Stick Wrapper** for packaging sticky candies and other products made possible by new wax coating of white, odorless, synthetic wax in conjunction with paraffin wax. (156)
- **Waterproof Cloth or Paper** in one operation. A new waterproofing liquid does it. (133)
- **Synthetic Rubber** can be made flexible by means of a new plastizer which is now available. (184)
- **Cement, Concrete, Stucco** for defense buildings can be made waterproof. (138)
- **Glycerin Substitutes** meeting specific requirements are now commercially available. (175)
- **Metal Castings**, smooth and non-brittle, are now produced by a new foundry core application. (115)
- **Flameproofing Agent** cuts fire risks for textiles, paper, wood and composition board. (143)
- **Adhesive for "Cellophane"**, cellulose acetate and other synthetic materials of a similar nature. (118)
- **Temporary Clay Binder** for ceramic insulation prior to firing, enabling the clays to be molded without crumbling. (113)

JUST DO THIS:

See number in parenthesis after each subject. Jot down and mail to us any number that interests you. We will send you data sheets about the chemicals and their uses. Answers to many other problems in your industry are given in our 112-page manual "Chemicals by Glyco"—which is yours for the asking.

GLYCO PRODUCTS COMPANY, INC.
230 King St., Dept. B.W. 1, Brooklyn, N. Y.

has nothing to do with the labeling requirements themselves but stems from the current fight between the food and drug industries over who is to get the lion's share of the vitamin-mineral concentrate business. As part of their general offensive, pharmaceutical men have been trying to persuade state regulatory agencies—notably, the state pharmacy boards—to issue rulings restricting the sale of concentrates to drug stores. Now, they fear that FDA control of their products, exercised under a food section of the federal act, will prejudice their case before the state agencies.

• **What Must Be Declared**—In essence, the new regulations provide that the following information must appear on the labels of all special dietary products:

(1) A simple statement of the dietary properties on which the represented special use of the product is based. For example, if the product is a

cereal represented as having laxative properties, a statement of the principle on which such properties are based must be included in the label.

(2) If a product is intended for the treatment of any disease, there must be a statement giving adequate directions for its use.

(3) If the product contains vitamins A, B₁, B₂, C, or D, or the minerals calcium, phosphorus, iron or iodine, the proportion of the minimum daily requirement of such vitamin or mineral that a person can get out of a given portion of the product as already officially defined must be stated. Example: six ounces of enriched bread will provide the user with 35.5% of the minimum daily requirement of vitamin B and 15% of the daily iron requirement.

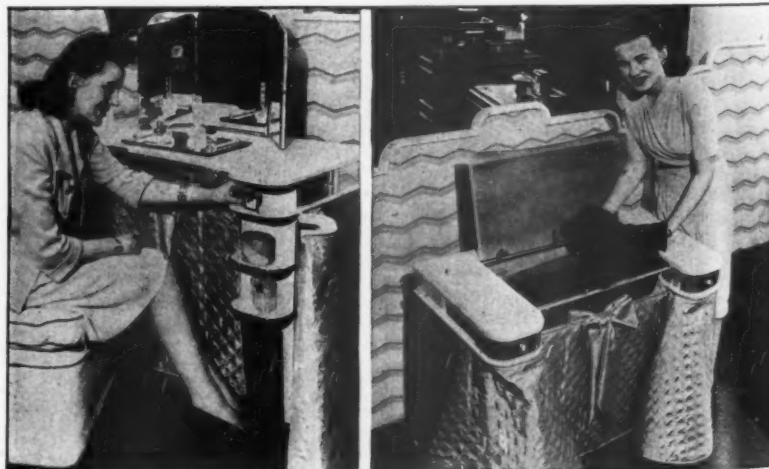
(4) If the product includes a vitamin or mineral which has not yet been demonstrated to be vital to the diet, a statement to this effect must be noted.



DOUBLE-DUTY FURNISHINGS

Designed expressly for small homes of war workers, much of the furniture exhibited recently at Chicago's American Furniture Mart featured conservation both as to materials used in their construction and as to room space.

One typical example (above) is an adaptation of an early American tilt-top table which, when not used for dining, provides the equivalent seating space of two chairs. The vanity dresser (below) conceals a small cedar chest. Both table and dresser are slightly smaller than regular models.



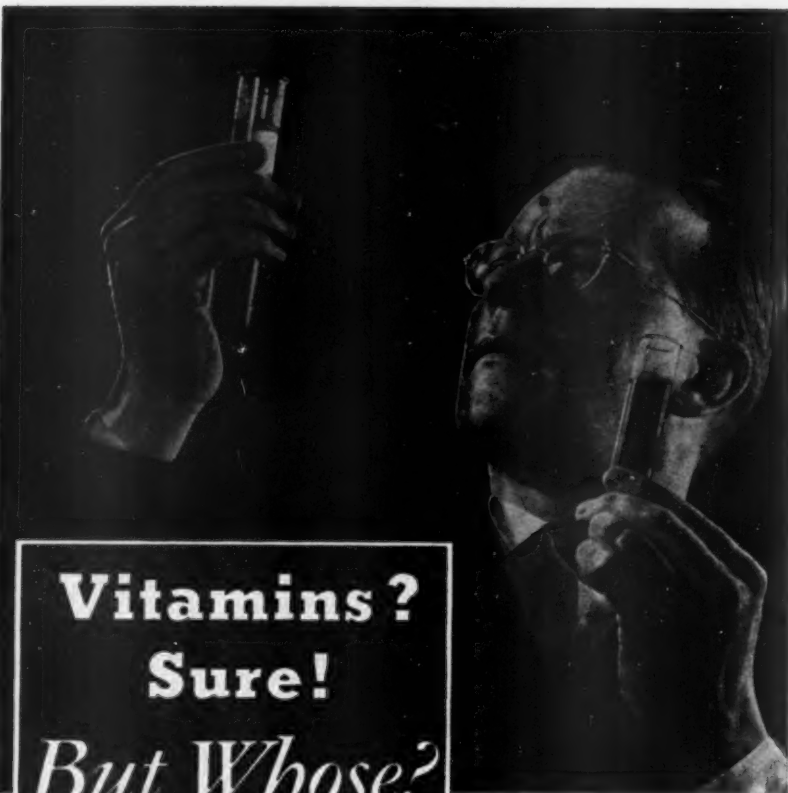


If entertainment

sells merchandise . . . why not Sunday comics . . .
which are better known than other entertainers . . .
successful over a longer period . . . read regularly
by whole families every Sunday . . . with eye appeal,
and emotional as well as risible reactions! . . .
The best comics sections? Metropolitan Group
. . . with better than 75% *adult* readership
(not counting kids) . . . 11,000,000 urban circulation
. . . families concentrated in the states that buy
two-thirds of all consumer goods . . . with four colors
. . . half-page space unit . . . low cost . . . and
proven effectiveness! . . . Get the details—and
get the best value in major media today!

Metropolitan Group

Baltimore Sun • Boston Globe • Boston Herald • Buffalo Courier-Express • Chicago Tribune • Cleveland Plain Dealer • Des Moines Register
 Detroit News • Detroit Free Press • Milwaukee Journal • Minneapolis Tribune & Star Journal • New York News • New York Herald Tribune
 Philadelphia Inquirer • Pittsburgh Press • Providence Journal • Rochester Democrat & Chronicle • St. Louis Globe-Democrat
 St. Louis Post-Dispatch • St. Paul Pioneer Press • Springfield Union & Republican • Syracuse Post-Standard • Washington Star • Washington Post
 CHICAGO: Tribune Tower • DETROIT: New Center Bldg. • SAN FRANCISCO: 155 Montgomery St. • 220 East 42d St., N. Y.



Vitamins? Sure! *But Whose?*

MANY food and pharmaceutical companies know the answer to this question as it applies to oil-soluble vitamins.

They are depending on Distillation Products, Inc. And so, we believe, should you.

For instance, Vitamin A. The concentrate we offer is Distilled Vitamin A Esters*, made by DPI in high vacuum stills. Absolutely unique in its field, this concentrate is the only one in which the natural oil preservatives—the anti-oxidants—are distilled along with the vitamin in *natural ester form*—a fact that gives this concentrate, so far as we know, two-to-ten times greater stability than any other commercial Vitamin A concentrate. Distilled Vitamin A

Esters are so bland, so uniform and so amaz-

ingly stable they actually *defy* comparison.

You'll find Vitamin D (ARPI Process) (Viosterol)** a superb product, too. Already it is serving hundreds of commercial users who appreciate its ten points of value. Made by electronic activation of ergosterol, Vitamin D (ARPI Process) is available in a variety of forms and concentrations to suit almost any conceivable need. (Also Vitamins A and D in combination).

For dependable, high quality oil-soluble vitamin concentrates and for sound assistance in planning vitamin fortification, be sure to get in touch with DPI. Literature on each of the vitamin concentrates mentioned above is available upon request. Ask also for prices, samples and data for your technical men.



*Protected by U. S. product patent No. 2,205,925 and more than 50 process patents.
**Manufactured by Special Commodities Division of General Mills, Inc.

DISTILLATION PRODUCTS, INC.

755 RIDGE ROAD WEST, ROCHESTER, NEW YORK
Jointly owned by EASTMAN KODAK CO. and GENERAL MILLS, INC.
Sales agent: Special Commodities Div. (Formerly Research Products Div.), General Mills, Inc., Minneapolis, Minn.

"Oil-Soluble-Vitamin Headquarters"

Copyright 1942 by General Mills, Inc.

Pills in the Contract

Union's successful demand for daily vitamin dosage points food and drug makers' way to new market and new promotion.

In Philadelphia last fortnight the Empire Ordnance Corp. and the United Electrical, Radio, and Machine Workers Union (C.I.O.) sat down to negotiate a contract. Right from the start it became apparent that this was no ordinary bargaining, for adamantly the union insisted on a singular demand: two vitamin pills per day per employee. Convinced that the union wasn't fooling, Empire verbally agreed to provide the pharmaceutical boon.

• **Nutrition-Conscious**—Contracts such as this—but with the vitamin clause in writing—may soon become commonplace. Union organizers are beginning to be nutrition-conscious since the strain of long hours and fast work is taking a fatigue-toll of workers. Carl Bersing, C.I.O. international representative who carefully watched the dickering with Empire Ordnance, claims that if the new experiment pans out as expected, there will be similar demands in all negotiations under his jurisdiction for the duration.

All of which, of course, isn't escaping the eye of food and drug manufacturers. Before them looms (1) a new industrial market, (2) the chance to spread their nutrition and health gospels through union channels.

• **Coast Revelations**—But it wasn't the food and drug manufacturers that got the unions started on this tack. More directly it was a report by Dr. Henry Borsook, California Institute of Technology scientist and member of the National Nutrition Committee (BW-Apr.18'42,p73). After making a survey of Lockheed Aircraft employees at Burbank, he reported that about half exhibited some kind of vitamin deficiency, due principally to lopsided diet and overhasty meals.

Thereafter unions and employers alike began to show an interest in vitamins, especially when small-scale experiments indicated that the pills gave workers a definite "lift."

• **Gospel-Spreading**—While the vitamin manufacturers and food processors will be glad to tap the financial possibilities of this budding industrial market, the really big lure lies beyond it. Imagine, they say, what will happen when workers go home with the gospel of vitamins deep in their hearts. It'll be like the early 1920's when ex-soldiers, mindful of the cigarettes and canned goods that abounded in army camps, helped start a heyday for that type of merchandise.

Furthermore, it's quite possible that

such gospel-spreading will be put on an organized basis by the unions themselves. Many of the big, stable organizations today have women's auxiliaries whose attention is being turned more and more toward the requirements of health and nutrition.

• **On the Mailing Lists**—Being relatively new and without literature or research facilities, such auxiliaries are bound to become prominent on the mailing lists of manufacturers and trade associations who have developed literature with real instructional value. Several are planning to key some of their efforts in that direction immediately.

Wartime Rackets

Business men warned to be on guard against shady gentry who capitalize on situations created by present emergency.

Wartime curbs are freezing the marketing system for legitimate distributors, but for those shady fellows who specialize in selling the Brooklyn Bridge it's a field day. Although the rationing system hasn't yet been made extensive enough to evoke any real black markets, the shortage of durable goods and the emphasis on Army-Navy requirements are enough to bring out a new crop of fakers.

• **How They Operate**—Checkups by better business bureaus indicate that these petty racketeers are currently concentrating their efforts on (1) promoting phony repair services, (2) organizing "official" Army-Navy clubs, exhibitions, magazines, and charities, and (3) selling phony merchandise of the hard-to-get variety.

The "repair" boys operate most viciously in the plumbing and heating fields. They generally organize a sort of house-to-house campaign, offering to check up on the home owner's furnace or plumbing. After tinkering a bit, they walk away with enough pipes, valves, etc., to make the racket worthwhile.

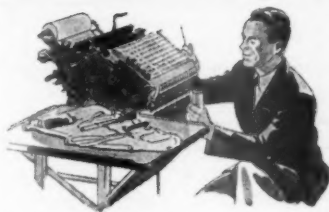
• **Epsom Salts for Batteries**—Another variation is the sale of "dopes." A fairly common example is peddling epsom salts (under a fancy name) to give new "life" to storage batteries.

It's the military field, however, that offers the widest latitude for ingenuity, because it's easy to drum up sympathy and patriotism in these times. Here are some of the commoner schemes:

• **"Keep 'Em Flying Clubs,"** organized for no other purpose than to get suckers to contribute membership dues.

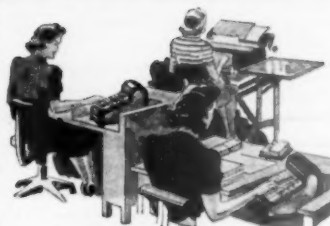
• **"Official" Army-Navy publications** whose subscriptions and advertising contracts are on an all-cash basis. Publication of these journals rarely comes to pass, and where an actual issue is

TIMELY WARTIME HELPS FOR BURROUGHS USERS



MECHANICAL SERVICE

Burroughs' own salaried, factory-trained, factory-controlled service men inspect, lubricate and adjust Burroughs machines; make repairs and replacements with genuine Burroughs parts.



OPERATOR INSTRUCTION

Burroughs renders timely and valuable assistance by showing operators how to make full use of the many time-saving features and advantages that are built into Burroughs machines.



ADVISORY SERVICE

Burroughs representatives, trained and experienced in machine systems and installations, are fully qualified to suggest time-saving short-cuts . . . to counsel with users in meeting today's accounting requirements with their present Burroughs machines.



INFORMATION LIBRARIES

Every local Burroughs office is kept supplied with the latest information on how Burroughs machines are being used to meet today's increasing and changing accounting requirements. This information is always available to Burroughs users.

For years Burroughs users have profited by the various services that Burroughs provides to help them get the most out of their Burroughs equipment. Today, under wartime conditions, these services are more important than ever before.

Thousands of Burroughs users are taking advantage of these services to prolong the life of present equipment, as well as to meet the increasing demands and changing requirements of today's accounting.

BURROUGHS ADDING MACHINE COMPANY, DETROIT, MICHIGAN

Burroughs

printed, it's either too skimpy to mean anything or the distribution is too narrow. A variation on this scheme is the same of "official" flags. (Incidentally, there is no such thing as a special, official service flag.)

● **"Defense" exhibitions**, purporting to stimulate local trade. As practiced recently in Philadelphia, this scheme was called "National Defense Exhibition and Stamp-Ede." It involved the raising of money for charities through various contests (including the inevitable baby contest). But the whole thing was nipped in the bud when the enterprising promoters were arrested on charges of fraudulent conversion, setting up an illegal lottery, and violating the Solicitations Act.

● **"Unhonored" merchandise gags**, which involve the mailing of handkerchiefs, pencils, and other trinkets to persons who didn't order them. The recipients are supposed to send a contribution to the "charity" in return for the gift. Because numerous reputable charities use this system, too, it's hard to detect the phonies.

● **"Refugee" organizational drives**, hard to detect because of the legitimate ventures in the field.

● **"Who's Who" books**, an old-timer which has for its latest version a roster of persons contributing to national defense. Patriotic books and contests requiring special entry fees are variations of the same gag.

● **"Hard-to-Get"**—Phony merchandise now being sold as hard-to-get includes paint (generously diluted with water), "refugee" personal effects (art objects and chinaware—of a low grade—are prominent here), seed for victory gardens, and among other things, "special" sand for putting out firebombs.

There has also been a big revival of worthless oil-stock sales, due to the gasoline shortage. And here and there swindlers have pried out some cash for tracing birth certificates, making pre-Army physical examinations, "expediting" defense contracts, getting cheaper insurance, or setting up salvage campaigns. One ingenious faker even managed to get some factories to put up money for a mechanics' training school that didn't exist.

● **Some Safeguards**—Better Business Bureau records show that most of these petty rackets are worked by habitual crooks who have a long experience in the field of swindling, often use "sucker" lists.

To keep your name off such lists, the Better Business Bureau advises: (1) Question all telephone solicitations from strangers, (2) don't contribute to any "cause" without a complete, unbiased report on it, (3) ask solicitors to fill out a questionnaire (the Better Business Bureau has a special form for this), and (4) subscribe to advertising only on a c.o.d. basis.

Where Shortages Pinch the Consumer

FINISHED GOODS, SERVICES AND STAPLES

The mortality rate among civilian goods, services, and staples continues to soar. This tabulation continues where the two prior lists left off (BW—Mar. 21 '42, p. 62, Apr. 11 '42, p. 16).

● **Accessories and Utensils**—Use of iron and steel banned, and substitute metals (except gold and silver) prohibited. Some 400 items—including bathtubs, book ends, cigarette lighters, salt and pepper shakers—are affected.

● **Batteries (Storage)**—Number of sizes and models reduced from 75 to 15, and production cut 25% from 1941 sales levels for the next six months. Retailers may not sell new replacement batteries for passenger cars and light trucks unless the purchaser turns in a used battery.

● **Caskets, Burial Vaults**—Use of iron and steel cut 25% to 75% from 1940 levels and prohibited entirely after June 30. Substitute metals prohibited.

● **Clothing**—Most major types simplified and defrilled.

● **Coffee**—Sales between roasters and wholesalers cut 25% from 1941 levels.

● **Construction**—New construction (except for defense purposes) prohibited.

● **Corsets, Combinations, Brassieres**—Use of elastic fabric reduced 50%.

● **Deliveries**—Effective May 15, special deliveries, call-backs, and multiple-per-day deliveries are prohibited. As of June 15, local carriers must reduce mileage 25% as against 1941.

● **Fishing Tackle (Noncommercial)**—Use of metal, plastic, and cork banned after May 31. Fish hooks are exempt, but production must be cut 50% from 1941.

● **Floor Coverings, Drapery, Upholstery**—No more wool may be put into process.

● **Floor Coverings (Rugs, Carpets, Linoleums)**—Production of carpet yarn banned; use of jute and linoleum burlap prohibited.

● **Fuel (Motor)**—Benzene may not be used in motor fuel, or as a fuel for any vehicle.

● **Golf Clubs**—Use of iron and steel cut 50% until May 31, then banned altogether. No plastic, cork or metal (other than iron, steel, gold and silver) may be processed.

● **Hair and Bobbins (Metal)**—Length and thickness regulated, metal restricted.

● **Heating and Plumbing Equipment**—Stocks frozen, and retail sales prohibited unless the item costs \$5 or less, or the purchaser has at least an A-10 rating.

● **Heating Equipment (Natural Gas)**—Deliveries of natural or mixed gas prohibited in certain areas unless the equipment (or conversion) was installed prior to May 15.

● **Heating Equipment (Oil Burners, Coal Stokers)**—Production and assembly halted on Class A units (burning more than 15 gal. of oil, or 60 lb. of coal per hour) except to fill orders with at least an A-10 rating. Production of smaller burners and stokers has been cut 50% from 1941 levels, but will also be prohibited (May 31).

● **Heating Equipment (Warm Air Furnaces)**—Use of iron and steel cut 50% (by weight) as against 1940 for Class A manufacturers (those who assembled 8,000 or more units in 1940) and 10% for other manufacturers.

● **Heating Pads (Electric)**—Production will halt on June 30.

● **Helmets (Civilian Air Raid)**—Manufacture and sale prohibited.

● **Laundry and Dry Cleaning Equipment (Commercial)**—Sales prohibited except for defense and high-priority requirements. Production to be halted.

● **Lingerie**—Unnecessary yardage in women's and children's nightgowns, slips, petticoats, and pajamas prohibited (page 56).

● **Motion Pictures**—New materials used in sets may not exceed \$5,000 per film (labor and reused materials not to be counted).

● **Ranges (Domestic Electric)**—Civilian production will halt May 31. Sales prohibited.

● **Records, Transcriptions (for Radio and Phonograph)**—Use of shellac cut 70% as against 1941.

● **Sanitary Napkins**—Sizes standardized to conserve cotton gauze.

● **Screening (Copper)**—Stocks in dealers' hands frozen, and sales forbidden.

● **Sewing Machines (Domestic)**—Production cut 25% from 1940 levels on machines and attachments, but will halt entirely on June 16.

● **Shoes**—Shanks (the stamping inserted between insole and outsole to reinforce the support for the arch) are limited to three specific thicknesses, and the use of wood in place of metal is advocated. Meantime, heavyweight types of leather soles are reserved for Army and lend-lease requirements.

● **Soups**—Major lines of condensed soups are allowed 100% of 1941 amounts of tins for packing, but only No. 1 Picnic or larger cans may be used. Ready-to-serve soups of the same classification are allowed 70% of 1941 tins if the packers convert to condensed-soup production.

● **Spices**—Packers may not deliver more than 75% of their 1941 levels of pimento, cassia, cloves, ginger, nutmeg, mace, and white pepper. Deliveries of black pepper may remain at last year's levels. Wholesale and retail supplies of these spices (except black pepper) will be cut about 50%.

● **Sponges (Luffa)**—May not be sold to anyone having a lower than A-1-a rating.

● **Telephones**—Residential extensions to be limited, and party-line service will often be substituted for single-line service.

● **Textiles (Cotton)**—Mills have been ordered to use certain looms for military needs.

● **Tractors**—Production of small track-laying types (17-35 hp.) halved. Production will cease altogether on Aug. 31.

● **Tubes (Radio)**—Manufacture prohibited on 349 of the 710 current types.



Everything for MacArthur is RUSH!

A delay of one, two, three days is serious . . . whether it's at his end of the haul, or here at ours. An unnecessary delay is worse than serious. MacArthur wouldn't tolerate it for an instant in his sector . . . we shouldn't tolerate it in ours!

And a lot of unnecessary delays are occurring here at home, simply because we aren't making full use of a group of specialists in transportation—the industrial traffic managers of America.

They are experts. They know how to get material to and from their plants better than anybody else, because they've been doing it for years. They've had to do it efficiently, under sink-or-swim competitive conditions; otherwise they and their companies could never have survived.

They know by experience when to use highway, railway, airway or waterway to get results . . . and how and when to shift from one to another quickly in an emergency. They know all of the shortcuts and detours, of which there are many. They work with their sleeves up and at close range.

They're anxious to help win the war.

They want to contribute their proven knowledge, experience and ability.

But . . .

They are being wasted . . . permitted to use only a fraction of their ability.

On virtually all government orders, bills of lading—shipping orders—specify the routing. They are provided by government officials who are handicapped by these factors: 1—These men are possibly hundreds of miles from the operation. 2—They are unfamiliar with each factory's facilities, sub-assembly connections, etc. 3—They are unaware of local emergency situations that are constantly arising.

The industrial traffic managers have no authority to change the specified routing in the least detail, even though following it may mean days of delay, piling up of stocks on loading docks, congestion in freight yards, and a general slow-down of production effort and morale.

One of the reasons for this situation is the "land-grant law," the repeal of which is now before Congress. This law provides that, in return for land grants made to railroads decades ago, the railroads must give reduced rates on government shipping. In consequence, many government

departments are required to specify rail shipment of material.

It is obvious that this restriction should be removed. Industrial traffic managers should have the authority either to initiate the traffic movements to and from their plants, or at least to change orders that prevent the most efficient flow of material.

The traffic managers of America will gladly accept this responsibility. They'll turn in a grand job, too.

The aid of these men is needed now, but it will be needed a great deal more within a few months. Authorities say that by mid-summer, all highway, railway and waterway equipment will be in use to capacity, but our war production will not yet be in high gear. The efficient routing of shipments will then be even more vital. We'll need all of the experience, resources and brains we can muster.

Give the industrial traffic managers a chance!

Remember the shipping tag. It reads, "Consignee: MacArthur—Rush!"

YES, THINGS LIKE THESE DO HAPPEN

HERE ARE just a few actual examples of traffic bottlenecks that have hindered our war production. They resulted largely because shipments were routed by remote control. They could have been avoided if the industrial traffic managers had been given the responsibility. They aren't universal, of course, but they are happening every day . . . far, far too often.

A bill of lading for a shipment to Bay City, Mich., specified a certain motor freight line, which does not operate to Bay City. Irrecoverable time was lost straightening this out.

★ ★

A vital precision machine tool was made in Detroit for a Cleveland factory. It was needed right now. The Detroit plant worked through Saturday and Sunday . . . time-and-a-half and double-time. Then it took 3 days . . . over 3

railroads . . . to reach Cleveland, 180 miles away. It could have been shipped overnight by Truck-Trailer, which is preferred for delicate precision machines, anyway.

★ ★

A leading chemical company had a rush order for a carload of material. The material was produced on schedule and loaded on a freight car available on the company's siding . . . where it stood for 3 days until routing instructions were received.

★ ★

A lathe manufacturer in southern Ohio loaded and blocked a lathe on a Truck-Trailer, hauled it 3 miles to a siding, reloaded it on a flat-car and blocked it down again. Then it made the trip by rail . . . 15 miles. The same Truck-Trailer could have delivered it in one hour easily.

A Detroit firm ships shell cases to Ohio, the haul taking 2 to 3 days by the specified route, when it could be made overnight.

FRUEHAUF TRAILER COMPANY • DETROIT

"Mud don't bother us none!"



The winch on the front of the tractor carries the emergency lifeline for both tractor and field piece. In the army, as in the navy and in industry, men depend on American Cable

TRU-LAY Preformed WIRE ROPE **to lift...to haul...to hold**

For example:—United States Army tractors can haul tremendous loads through deep mud and sand. But when they sometimes encounter conditions where there is no traction, the winch comes into play. With a tractor firmly anchored by its Tru-Lay rope, it winches out under its own power.

Tru-Lay Preformed Wire Rope's excellent work for the army is no surprise to industrialists. They discovered years ago that long-lasting Tru-Lay saves money and time. Fewer and shorter shutdowns for replacements save additional time. Being easier, faster and safer to handle, Tru-Lay makes man and machine hours more productive. Its longer life saves steel for other vitally necessary purposes.

Tru-Lay Preformed Wire Rope is one of 137 essential products we make for Industry, Agriculture and Transportation.



AMERICAN CHAIN & CABLE COMPANY, INC. • BRIDGEPORT, CONNECTICUT

In Canada—Dominion Chain Company, Ltd. • In England—The Parsons Chain Company, Ltd., and British Wire Products, Ltd.
American Chain, American Cable Wire Rope and Aircraft Controls, Campbell Cutting Machines, Ford Chain Blocks, Hazard Wire Rope, Manley Garage Equipment, Owen Springs, Page Fence and Welding Wire, Reading Castings, Reading-Pratt & Cady Valves, Wright Hoists and Cranes

Lingerie Defrilled

Nightgowns, pajamas, and slips cut to WPB specifications will appear with fall lines, and industry apparently is unruffled.

Feminine lingerie is going to look less than ever like the seductive nighties and ruffled petticoats worn in Hollywood's boudoir scenes. WPB's new general limitation order, L-116, which is expected to reduce by 15% the yardage used by the lingerie industry, limits sweeps (skirt circumference), lengths, and certain other details on slips, nightgowns, sleeping pajamas, and petticoats. Chemises, panties and other small undergarments are not affected, since they rarely use more than the necessary amount of material.

● **Shadow Panel Is Out**—A sigh of relief from the industry itself greeted one of the more drastic restrictions—the elimination of the shadow panel (or any double-skirt effect) in slips, a pet nuisance for years. The order also eliminates ruffles below the waistline of any garment, bans balloon, dolman, or leg-o-mutton sleeves, and outlaws matching nightgown accessories (including hoods, shoes, jackets, hot water bottle covers, or negligees) since not more than one lingerie item can be sold at a unit price.

Manufacturers do not regard these restrictions as drastic; in fact, the specifications are approximately those to which the low-price makers have been adhering for some time.

● **Closing-Out Process**—So-called "high-style" houses were busy selling their full-fashioned, beruffled, and many-tucked garments to retailers anxious to advertise a large stock as the last of the prewar, or luxury lingerie.

Since women's underwear manufacturers traditionally open their fall lines the first two weeks in May, many had been waiting for L-116 to appear before designing new lines. Therefore nightgowns, slips, and pajamas cut to the new restrictions will appear in shops before milady buys coats and dresses limited by the sweeps and lengths specified in Order L-85 a few weeks ago (BW-Apr. 18'42,p32).

● **Prescribed Lengths**—L-116 establishes the length for size 36 nightgowns at 72 inches, pajama jackets at 25 inches, and trousers (including waistband) at 41 inches. Slip lengths are expected to be controlled by those set for outer garments by L-85. Entirely eliminated are double material yokes, more than one pocket, and all-over tucking, shirring, or pleating. Hems are limited to one inch. This item of the restrictions will perhaps save the least yardage since slips and nightgowns characteristically have narrow rolled hems.

An Hour for G.M.

Institutional radio program reverses an advertising trend in evidence since last December. A.N.A. reports on war ads.

When the auto advertisers called off their straight-from-the-shoulder sales efforts last December (BW—Dec. 20 '41, p37), they took no halfway measures. Ford pulled its million-dollar radio program off the air; Chrysler chopped its show in half; newspaper automotive linage went into such a tailspin that by March over two-thirds of it had succumbed to the adversities of the times.

● **Institutional Campaign**—Next month, however, General Motors will rise phoenix-like from the ashes of its prewar advertising efforts with an institutional campaign that's by all odds the biggest yet put forth by anyone since Pearl Harbor. In the form of a radio program, it will occupy a Tuesday evening hour over 114 stations of the Columbia Broadcasting System, and on an annual basis could well come to around \$1,000,000 in air time alone.

Uniquely, this mighty splurge brings together General Motors, which unlike Ford and Chrysler hasn't used network radio lately, and CBS, which only a couple of months ago kissed the lucrative Ford account goodbye.

● **Contact with Camps**—General Motors' choice of radio appears, in part, to hinge on the fact that it wanted an intimate contact with army camps. The program (called "Cheers from the Camps") will be made up principally of soldier talent, is calculated to give civilians an insight into what their sons are doing.

The advertising messages will not sell anything—not even the dealer services General Motors has been boosting lately (BW—Mar. 7 '42, p56). Sponsor identification with the war effort, and maybe a few personal speeches by G. M. officials, will be the sole mentions of the nation's biggest auto maker, now turned military supplier.

● **Will Others Follow?**—Because even institutional advertising has its competitive angles, hopes are running high that the G. M. effort will soon stir up similar activity on the part of other advertisers (notably in the hard-hit durable goods fields). As things stand now, institutional advertising hasn't reached really big dimensions, though the number of practitioners has been rising.

But some of the barriers may be breaking down in that advertisers are more and more learning the ins and outs of censorship, as well as the nature of reader reactions. On the former topic (censorship), the Assn. of National Advertisers recently issued a comprehensive guide (BW—Mar. 7 '42, p56). And as re-



Credit: Underwood & Underwood

SHELLS, parts, instruments, medicines, and other war supplies must be well packaged. Many of these now vitally important items create new packaging problems. Manufacturers of consumer goods also are faced with the task of creating new packages to conform with materials available, without sacrificing appearance.

Few packaging mediums are better suited to meet these demands than set-up paper boxes. They are rigid and withstand abuse; yet from the standpoint of design they offer limitless opportunities for creative possibilities.

To meet the emergency demands of today's packaging, "Master Craftsmen" have stripped for action. These leaders of the set-up paper box industry have information and experience which enable them to offer you a prompt, intelligent packaging service. Consult the list on this page for your nearest "Master Craftsmen" member.

BUY BONDS FOR VICTORY

MASTER CRAFTSMEN of the SET-UP PAPER BOX INDUSTRY
ROOM 1106, LIBERTY TRUST BUILDING, PHILADELPHIA, PA.



Copyright 1942, Master Craftsmen

MASTER CRAFTSMEN

BALTIMORE, MD., Maryland Paper Box Co.	KANSAS CITY, MO., Crook Paper Box Co.	PHILADELPHIA, PA., Data Mfg. Co.; Walter F. Miller Co., Inc.; Royal Pioneer Paper Box Co.; Edwin J. Schoettle Co.; Sprowles & Allen.
BOSTON, MASS., Bicknell & Fuller Paper Box Co.	LEBANON, PA., Lebanon Paper Box Co.	PORTLAND, ME., Casco Paper Box Co.
BROOKLYN, N. Y., Specialty Paper Box Co.; E. J. Trum Co., Inc.	LOUISVILLE, KY., Finger Paper Box Co.; Kentucky Paper Box Co.	PROVIDENCE, R. I., Hope Paper Box Co.; Taylor Paper Box Co.
BUFFALO, N. Y., Thoma Paper Box Co.	MERIDEN, CONN., Shaw Paper Box Co.	SEATTLE, WASH., Union Paper Box Mfg. Co.
CHATTANOOGA, TENN., Atlas Paper Box Co.	NASHVILLE, TENN., American Tri-State Paper Box Co.	ST. LOUIS, MO., Great Western Paper Box Co.; Moser Paper Box Co.; F. J. Schleicher Paper Box Co.; Service Paper Box Co.
CHICAGO, ILL., Kroeck Paper Box Co.	NEWARK, N. J., Mooney & Mooney; Newark Paper Box Co.	UTICA, N. Y., Utica Box Co.
COLUMBUS, OHIO, Columbus Paper Box Co.	NEW YORK, NEW YORK, A. Dorfman Co., Inc.	
DANVERS, MASS., Friend Paper Box Co.	PAWTUCKET, R. I., Shaw Paper Box Co.	
HARRISBURG, PA., The McClellan Corp.		

Cooperating Suppliers:

Appleton Coated Paper Company; Blackstone Glazed Paper Company; Louis DeJonge & Company; Hampden Glazed Paper and Card Company; Haas Paper Company; Holyoke Card and Paper Company; Holyoke Coated & Printed Paper Co.; Hughes and Hoffman; Lachman-Novasol Paper Company; Marvellum Company (The); Matthias Paper Corporation; McLaurin-Jones Company; Middlesex Products Corporation; Nashua Gummed and Coated Paper Company; Paper City Manufacturing Company, Inc.; Plastic Coating Corp. (The); Riegel Paper Corporation; Stokes and Smith Co.; Charles W. Williams & Co., Inc.

gards reader reactions, the Advertising Research Foundation has demonstrated war ads have a high rating among newspaper readers (BW—Apr. 11'42, p. 54).

• **Public's Attitude**—To the readership fund, the A.N.A. last week made a second contribution by announcing the

general results of a survey (based on 30 advertisements):

"In general, it was found that the public is not particularly averse to war-product advertising but does not take kindly to boastful copy; that it does not believe advertising should be eliminated

in war time but that it is interested in copy which tells how to make products it has last longer; that it is interested in knowing what plans companies are making to take care of post-war unemployment; and that it resents copy which drags the war in by the ears."

FISK

E. H. SCOTT RADIO SALON

NORTHERN PACIFIC RAILWAY

MACY'S

KEEP 'EM SMILING

With all its ill effects on advertising of consumer goods and services, the war—particularly the big and little inconveniences of wartime living—has provided American copywriters with a new theme but one which has kept the British chuckling between raids for nearly three long years: war humor. Cartoonists and illustrators—including such top-flight artists as Gluyas Williams, Herbert Johnson, and W. Steig—are riding high on the current humor theme, be it of a grim nature as in Philco's series, or of a spoofing sort as in New York Central's advertisements.

NEW YORK CENTRAL

PHILCO CORPORATION

"That makes it Unanimous!"

RAND McNALLY & COMPANY

HOOD RUBBER COMPANY

NEW YORK'S CENTRAL RESIDENTIAL ZONE

HERE'S ALL YOU NEED TO END WINDOW SASH PROBLEMS



If you are faced with the need for replacing worn-out sash, either to repair your present plant or to rehabilitate an old one, you can take care of the problem in quick order with PC Glass Blocks. For glass block construction requires no use of critical materials in small panels—very little metal is required even in large panels. Many plant owners have set up a program of progressively replacing ordinary window sash with PC Glass Blocks. This change can be

made a panel at a time, a floor at a time, or department by department.

In addition to permitting immediate construction, PC Glass Blocks provide many other advantages that result in greater plant efficiency and lower maintenance costs. We can barely mention here the many ways they can help you. But it is information you should have on hand whether you plan to build, remodel or add to your plant. Our book on PC Glass Block construction will show you

how other plant owners have used glass blocks successfully. Mail the coupon below for your copy.

PC Glass Blocks give you all these advantages:

BETTER DAYLIGHTING • INSULATION
IMPROVED TEMPERATURE CONTROL
IMPROVED HUMIDITY CONTROL
LESS CONDENSATION ON WINDOW AREAS
EASIER CLEANING
ELIMINATION OF DIRT INFILTRATION
REDUCED MAINTENANCE COSTS • PRIVACY

"PITTSBURGH" stands for Quality Glass



GLASS BLOCKS

Distributed by

PITTSBURGH PLATE GLASS COMPANY

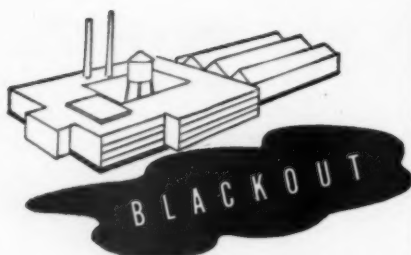
and by W. P. Fuller & Co. on the Pacific Coast

Pittsburgh Corning Corporation
2071-2 Grant Building, Pittsburgh, Pa.
Please send me your free, illustrated book that tells how PC Glass Blocks have been used successfully in many industrial plants.

Name.....

Address.....

City..... State.....



NIGHT SHIFT NOISE

⚡ Night shifts are standard practice now, and with them come problems that did not even exist before . . . problems involving your neighbors down the street who are trying to sleep while you work.

Many of the most penetrating noises, engine exhaust or intake, compressor intake, steam blow-off, can be effectively eliminated by Maxim Silencers.

Why add public relations troubles to your already overburdened schedule of things to do? Consult Maxim for the answer. Write The Maxim Silencer Company, 86 Homestead Ave., Hartford, Conn.

MAXIM

S I L E N C E R S

Canners Fret

Demand is large, fruit is plentiful, but shortage of tins, closures, labor, and sugar keep California packers worrying,

Beset by the most imposing list of worries in their history and blessed with an unprecedented volume of orders, California canners, who handle a major part of the total United States pack of fruits and vegetables, are commencing their 1942 season this month in a considerable daze.

• **Many New Questions**—Prospects for the future are even more complex. With the government admittedly aiming for more and more food preservation in less and less tin, the matter of containers, closures, and sealing material becomes a major problem. Price freezing (with the need, in some instances, of adjustments or subsidies) has added to the confusion. New questions concerning labor, transportation, storage, and supplies also have popped up to harass the already overburdened industry.

Although canners' woes frequently have been aired, developments during the last three weeks have somewhat changed the over-all picture. The gen-



SCRAP DRIVE

Coatsville, Pa., will probably remain scrap conscious for a long, long time following a collecting campaign which was put on by Lukens Steel Co., with all the hoopla that usually attends a community chest or Y.M.C.A. drive. At the Victory scrap yard, progress of the campaign was posted on a scoreboard in terms of tanks instead of tons.

eral trend was indicated last week when the container branch of WPB, advising canners and processors to give more thought to the preservation of food in tin cans, warned that there would be no further allocations of tin plate for the canning of "secondary" or "non-essential" fruits and vegetables.

• **Changing Emphasis**—Purpose of the can rationing plan is, of course, to increase the output of dried, dehydrated, frozen, or otherwise processed foods and to encourage the use of glass, plastic and other containers, thus conserving tinplate for increased canning of the so-called "primary" packs. In California the result has been to sharply decrease the canning of some of the largest crops, including freestone peaches and apricots which can be dried, and to increase the packs of clingstone peaches and other fruit which cannot be successfully dried.

Glass, plastics, and other materials are being used so successfully by California canners that the container problem appears to be less serious than was generally supposed. For the most part there are enough jars and bottles, although, like the cans, their sizes and shapes have been restricted.

Obstacles are in closing and sealing. The scarcity of cork and metal for caps and the recent ban on rubber sealing rings have sent the canners scurrying for new materials.

• **May Set New Record**—Although some difficulties now appear insurmountable, canners are trying to meet them as they arise. If they are even fairly successful in

PAGE FENCE

America's First Wire Fence — Since 1883



• Waste is an enemy against which America must be safeguarded, and loss of production time or vital materials due to careless or malicious trespassing is dangerous waste. • Now, more than ever before, industrial properties need the protection of Page Fence, the modern chain link barrier made by the company which was founded by the originator of woven wire fence in 1883. • Distribution, construction engineering and erection of Page Fence are handled by local, responsible firms which are factory trained and long experienced—more than 100 independent firms which own their plants and hold membership in PAGE FENCE ASSOCIATION, Headquarters: Monessen, Pennsylvania.

See ACCO advertisement in this issue, page 56

PRODUCT OF PAGE STEEL & WIRE DIVISION—AMERICAN CHAIN & CABLE COMPANY, INC., BRIDGEPORT, CONN.

VICTORY FIRST
At the Page mills, men, machines and materials are on an all-out schedule for production of fence to protect plants working on Government orders

jumping the hurdles, they should this year exceed the 1941 record pack of 46,250,000 cases of fruits and vegetables.

Unlike normal times, the merchandising of such a volume is not a major problem this year. With the government taking perhaps 40% of the pack, it would be just a matter of how to satisfy civilian demand were it not for the fact that Quartermaster Corps' buying is confined mostly to "choice" and "fancy" grades, leaving a dearth of higher-quality goods for the consumer public and a relative oversupply of lower qualities.

● **Seeking a Solution**—Protesting that they cannot induce nature to grow only top-grade crops, California canners say they would prefer that the armed services buy the run-of-the-mill output just as the retail purchaser will do. Representatives of the powerful Canners League are trying to work out some proposal which would at least spread out the grade requirements.

One proposed answer, the establishment of a new grade to be known as "victory," has failed to win the approval of most West Coast canners. Coming in between the "choice" and "standard" specifications, the proposed new patriotic grade appears an attempt to borrow from the appeal of "choice" to increase the consumption of lower-grade fruits.

● **Would Weaken System**—Some larger canning firms feel that such a move would not only submerge heavily advertised house brands but would also weaken the whole present grading system which the industry as a whole has helped build over a period of years. Also there is a feeling among canners that the "victory" grade might linger after the war to produce a real merchandising problem.

Fear is expressed by some California packers that the government may take advantage of the present situation to further its program of grade labeling, a move which might be welcomed by some of the smaller canners. On the matter of grading and standardization, canners point to the recent statement of Roy F. Hendrickson, administrator of the Agricultural Marketing Service, stressing that need and the present opportunity of "developing a common language for grades on a scientific basis that can be understood all along the line from the farmer to the consumer."

Specifically, Hendrickson stated: "We need to look forward to developing a systematic program for making these necessary revisions in our grades and standards—a program which will permit all to have their say, including farmers, tradesmen, technicians, and state and federal officials. . . . The war is rapidly focusing attention on spots in our marketing and distribution system where improvement is urgently needed."

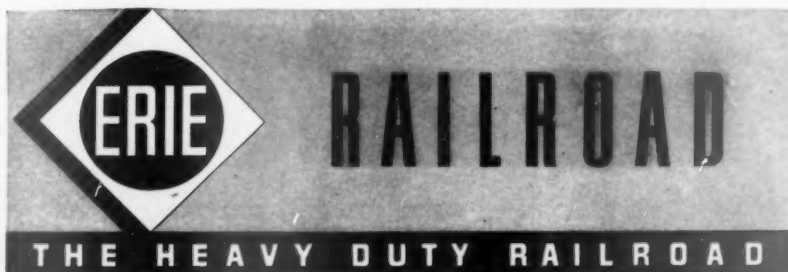
● **Serious Labor Shortage**—Most immediate grief of California canners is, of course, labor. Despite various solutions



About Pigs and Pig Iron

● **Pigs from America's farms and "pigs" from the nation's blast furnaces . . . both are vitally important to America's war effort. Both get special handling on the Erie. But Erie has special equipment, special facilities, and specially trained personnel to treat every type of shipment individually. We think you'll like the treatment your freight will get on our road.**

For any transportation information call the local Erie man.



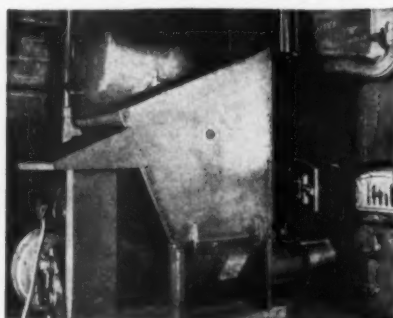
Carl Friedlander, President, Aeronca Aircraft Corporation.



IRON FIREMAN

helps Aeronca
"Keep 'em Flying"

BY enabling boiler plants to produce 15% to 35% more steam, Iron Fireman is boosting war-time operations of manufacturing plants from coast to coast. One of the many progressive concerns which have adopted this modern firing method is the Aeronca Aircraft Corporation. Iron Fireman is giving Aeronca's boiler plant more "fire-power." Aeronca's fuel cost records show that Iron Fireman is saving 18%, compared with hand-firing, through conserving substantial coal tonnage for war use. Aeronca's experience is typical of the hundreds of plants that have increased their war-time fire-power with Iron Fireman. Iron Fireman Mfg. Co., 3275 W. 106th St., Cleveland, Ohio. (Factories at Portland, Ore.; Cleveland; Toronto).



Iron Fireman "Poweram" stoker in Aeronca plant, Middle town, Ohio. Boiler plant designed by W. Mota, Consulting Engineer, and Garriott, Becker & Bettman, Architects, Cincinnati.

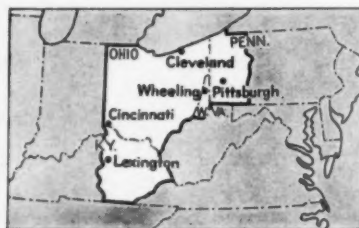
IRON FIREMAN

Automatic Coal Stokers



The Regional Market Outlook

CLEVELAND (Income Index—154.6; month ago—153.4; year ago—126.7)—With war towns leading the rise, payroll gains over a year ago now are running at average levels in this heavy-goods region generally. In such major Ohio cities as Cleveland, Cincinnati, and Akron, the worst conversion dislocations have been overcome, and rubber, auto parts, and electrical-appliance workers are rapidly being shifted to military production. However, Day-



74,027 sq. mi.

pop. 11,809,520

RICHMOND (Income Index—171.2; month ago—166.9; year ago—135.6)—Construction awards, up 98% from 1941 for the first quarter, are boosting income prospects in this Reserve district.

With airport work at Martinsburg, plant expansion at Huntington, etc., contracts in West Virginia are up 125% above a year ago; this is in line with expectations (BW—Mar. 14 '42, p. 76). And more than a dozen Carolina towns are slated for air schools and fields and other military bases—Goldsboro and New Bern, N. C., and Walterboro and Dillon, S. C., for instance.

Fully 25% of current awards have gone to the Hampton Roads shipbuilding area alone, where population (now 675,000) has jumped two-thirds since the Apr. 1, 1940 census. Building contracts in the District of Columbia are up sharply. However, Richmond's shipyard project (BW—Feb. 14 '42, p. 58) has

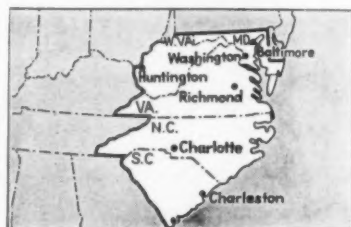
been abandoned—at least temporarily. Because of the agricultural concentration on cash crops rather than livestock in this district, farm income gains in recent off-peak-marketing months have been below average, except in tobacco-growing North Carolina. However, farm income prospects—always contingent on the weather—are bright, especially in the Carolinas. But in and around Maryland and Virginia arms areas labor is especially scarce, and agriculture may be pinched.

District employment will rise sharply over the next six months, with 50,000 persons to be added in aircraft and parts work alone. Ordnance, steel, machine-tool, and other metal-working lines also will be hiring. Meanwhile, awards for new plants and expansions—in this city and other cities along the lake, and in such southerly locations as Ironton and Portsmouth, Ohio, and Lexington, Ky.—are boosting prospects.

In western Pennsylvania, where steel, coal, and machinery predominate (rather than consumer durable goods) activity keeps pace with the nation's. Gains have been exceptional around Sharon and New Castle, and average in the Kane-Oil City and Erie areas. Around Pittsburgh, capacity is expanding more slowly and coal mining has been steady.

ton, hard-hit by the auto and appliance shutdowns, still lags. And steel operations at Youngstown reached capacity more than a year ago.

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152,471 sq. mi.

pop. 12,330,219

TWIN CITIES (Income Index—155.8; month ago—153.0; year ago—122.4)—From now on farmers in this agricultural area will keep a weather eye on spring and summer skies for clues to the volume of autumn marketings. In the past two weeks, heavy rains broke a month-long drought, and helped spring wheat and other crops along. Most corn is to be seeded this month, unless the weather interferes.

Pastures are in fine condition—thanks



412,304 sq. mi.

pop. 5,542,966

to the open winter. Meanwhile, livestock receipts are up sharply, especially from hogs. And dairy income—with egg prices and production high—has lifted farm income gains above those of the nation in Minnesota and central Wisconsin. In the remainder of the district, increases over a year ago have run about average.

Minnesota factory employment is up some 12% from 1941. And a big backlog of shipbuilding contracts at Duluth-Superior and ordnance awards here in Minneapolis and St. Paul should boost employment 30% by the year-end. Priorities dislocations may cut into this increase somewhat, but prospects in the pair of twin cities now rank above the national average. Moreover, iron mining on the Mesabi and northern Michigan ranges is well on the way to new records; Great Lakes ore shipments are expected to run 12.5% above last year's all-time high of 80,000,000 tons.

offered, the canners are still frankly worried. With the asparagus pack already under way, reports are coming in to San Francisco daily of abandonment of asparagus acreage because of the inability of growers to find workers. Greatest difficulty is the lack of "stoop" labor.

Although the spinach and asparagus packs, both relatively small crops, have not yet been seriously retarded by shortages of cannery workers, a bottleneck is definitely in sight after July 15 when freestone peaches, clings, grapes, pears, tomatoes, and citrus fruits hit the canneries almost simultaneously.

• **Worries over Sugar**—Some of the current confusion among California packers comes from the uncertainties of sugar supplies. Government plans for a 10% reduction of the sugar sirup content for all grades invalidate (under existing laws) perhaps \$1,000,000 worth of labels already lithographed for the 1942 fruit pack, the canners complain. Either expensive overprinting or some amendment to the Food and Drug Act seems necessary to straighten out the situation. Even more complex is the problem with vegetables where the reduction is not on a flat percentage basis but on the individual pack.

Adding to the canners' grief are such items as transportation and storage. In California, where the industry has depended largely on the flow of farm migrants, the tire problem is becoming particularly acute. Shortages of trucks and rail cars are also expected to hamper movement of produce from farms to canneries.

• **How to Store Goods?**—Creating a new California warehousing problem is the heavy buying (government orders, as a rule, cannot be shipped out for delivery as promptly as most consumer deliveries). Plans are now afoot to grant the same through freight rates to the East on shipments that can be dropped off at Omaha (or some way point) for interim storage.

GROCERS' AIR DEFENSE

To take the heat off the neighborhood grocer by explaining to patient housewives (who might easily become impatient housewives) the whys and wherefores of food rationing, prices, shortages, changes in grading and packaging, and the like, California Retail Grocers and Merchants Assn. started a weekly half-hour broadcast last week from San Francisco.

The explanatory parts of the program came between acts of a radio play designed to sell the independent grocer to the public. During the first broadcast (May 8), John May, representing the Food Rationing Division of the OPA, explained the sugar situation and the use of ration cards. It was made clear that the grocers aren't to blame for rationing or current food prices.

MOBILIFT

RELEASES MORE *able-bodied* MEN FOR WAR WORK



★ Mobilift does the work of up to seven people in war plants and releases able-bodied men for other branches of Uncle Sam's service. You owe it to your business to fully investigate EXCLUSIVE features of Mobilift, the ORIGINAL compact, low-priced lift truck. Moves, stack goods up to a ton. Mobilift's MODERN DESIGN eliminates gear shifting. Maneuvers faster in narrow aisles, freight cars, trucks. Write for additional facts and name of nearby Mobilift

engineer. VAUGHAN
MOTOR COMPANY,
819 S. E. Main Street,
Portland, Oregon.



Moves materials like a Giant!



BERMUDA BOUND (not on vacation)

Fluid Drives

for Industrial,
Marine and
Automotive Use

Not on vacation, not on your life! This mammoth Diesel truck is all set to do big jobs in Bermuda—to take its place in the big parade to Victory. American Blower Fluid Drive will play an important part in the smooth, dependable performance and long life of this "heavy hauler." In fact, this is but one of hundreds of applications, old and new, in which Fluid Drive is bringing about new high standards of performance and efficiency. More and more motor ships, pumps, fans, dredges, conveyors, trucks, excavators and oil drill rigs (to mention but a few) are Fluid Drive equipped. Investigate American Blower Fluid Drive for your own industry or products.

AMERICAN BLOWER HYDRAULIC COUPLING DIVISION

DETROIT, MICHIGAN
Division of AMERICAN Radiator and "Standard" Sanitary Corporation

Got a crating problem?

Perhaps Douglas Fir Plywood can be of service to you!

● Here's why airplane parts, engines, guns, munitions and war supplies of every kind are traveling in crates built of Douglas Fir Plywood: This engineered lumber can be fully depended on to protect shipments from damage.

It combines light weight, amazing strength, durability and large size. It works easily with hand or power tools; holds nails or screws at edge without splitting.

If crating is a problem, why not investigate how Douglas Fir Plywood can serve you? Perhaps Douglas Fir Plywood can pinch hit for other materials now unavailable to you, too . . . can help you speed war production . . . or even house workers in a hurry. Write for free Industrial Handbook or technical assistance. Douglas Fir Plywood Assn., 1623 Tacoma Bldg., Tacoma, Wash.

Stronger per pound than steel!



PRODUCTION

24 Ships a Month

That's the unprecedented rate at which Higgins shipyard promises to make Liberty freighters on its assembly lines by fall.

"I've worked with boats all my life. I had oakum in my teeth and a caulking iron in my hand when I was eight years old. But I never saw boat-building like this." Thus exclaimed a Down East visitor last week in New Orleans after a half-day trip through the City Park Ave. plant of Higgins Industries, Inc. (BW—Mar. 21 '42, p. 8). And a few months from now, when Higgins gets going on his contract for 200 of the 10,000-ton Liberty cargo ships—biggest single contract ever let by the Maritime Commission—Higgins' operation is certain to be an astonisher to shipyard men the world around, for he is figuring on turning them out at the rate of 24 a month. (And only yesterday a ship a day for whole U. S. shipbuilding industry was considered a high goal!)

● Preview—In the plant that is already operating, behind doors guarded with cops and shotguns, Higgins is building big, fast, spoon-bow wooden craft which, without benefit of piers or jetties, can put ashore on a hostile beach several squads of dry-shod soldiers or an Army truck complete with crew and cargo. The boats are Higgins' own patented design and were originally made for the use of lumbermen and oil producers in Louisiana's cypress swamps. But these boats have proved themselves in the English Channel at rescuing airmen and at landing commando squads on the blacked-out Norman shore.

Outstanding feature of Higgins' shipbuilding is his utter unorthodoxy of method. The site is not a yard but a factory that might be a steel-fabrication shop. It is miles from the nearest navigable water. The boats are made on assembly lines, and flotillas of them are delivered daily under their own power to the U. S. Navy.

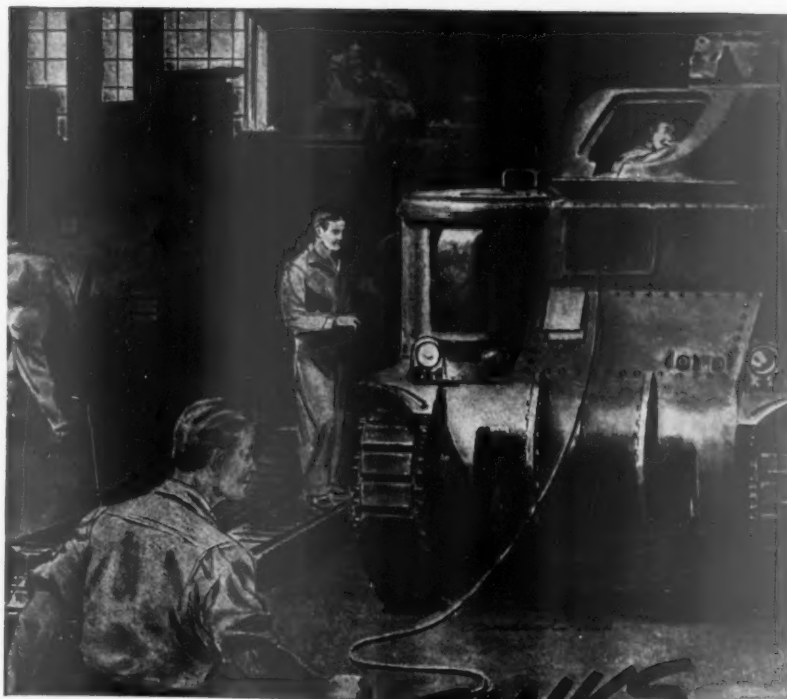
● Assembly-Line Principle—The technique now employed on the City Park plant assembly lines—a precursor of the method to be used in the construction of the cargo ships—is typical of the production-flow plan employed in Detroit's prewar automobile mills. The assembly lines run the length of the main building. Off at the side are fabrication shops that produce parts and sub-assemblies such as knees and ribs, skins, bottom planks, hatch covers, and the like. These pieces flow in to the assembly lines at the precise points where

needed. A view of the assembly shop, if it were cleared of boats-in-process, would disclose an area of several acres subdivided into rectangular compartments by plank walkways six or eight feet above the floor. Each compartment is a station on the assembly line, and there are three such lines.

• **In Easy Jumps**—The framework of the boat is built, upside down, with jigs and templates, in the first compartment of the line on which it starts. From here it is lifted by an overhead crane to the next station, where the plywood skin is applied, likewise the planking. Now the crane, equipped with a special fixture, turns the embryo boat in midair before setting it down in the next compartment. Thus, operation by operation, the unit progresses down the length of the plant.

Everything is done by timetable. Four times each day, four times each night, the big crane starts at the far end of the assembly lines, picks up the finished boats from the rectangles at the end of the lines and sets them in cradles permanently attached to railroad flatcars. These are then hauled a few miles to water and are rolled out on an underwater track until the boats float off for their trial runs. It takes perhaps an hour for the crane to move each boat in the shop ahead by one station. When a gang falls behind schedule, it cannot be permitted to hold up production. So the men ride in the boat to the next station. Occasionally, you may see a gang of tardy painters with sprayguns spewing as they crawl over the deck of a boat that has already been set on its flatcar.

• **New Yard Takes Form**—The shipyard from which Higgins has contracted to deliver 24 Liberty cargo ships per month beginning next fall is currently being constructed a few miles distant from the boat plant. Tractors and bulldozers are right now clearing and leveling the site. A dredge is hacking a canal through



MORE TANKS FASTER!

with Industrial GAS

The heat of battle calls for heat behind the battle. Heat treatment is a "must" for thousands of parts for airplanes, ships, guns, tanks, shells, torpedoes. Some parts so small they are heat treated in baskets in special Gas-fired furnaces. Some parts so big they take furnaces as large as whole buildings and handling machinery big enough almost to lift a ship by one end!

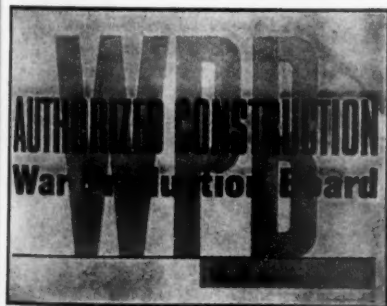
Whatever the size, modern Industrial Gas equipment is serving to shape the implements of War for land, sea and air. From thumbscrews to heavy tank parts,

from machine gun bullets to 16-inch guns, from airplanes to armor.

Gas is playing a major role in the speed-up of American industry, as it did in peace—as it will again in the making of thousands of consumer articles for civilian use when the war is won.

All this specialized knowledge is at your own disposal to help you speed production of vital war materials. Call your gas company for information.

AMERICAN GAS ASSOCIATION
INDUSTRIAL and COMMERCIAL
GAS SECTION
420 LEXINGTON AVENUE, NEW YORK



WPB AUTHORIZATION

Placards showing that approval has been granted by the War Production Board are being sent out to builders of authorized projects which cost over \$500. Space is afforded for a serial number identifying the project.

Business Week • May 16, 1942

THE TREND IS TO GAS

FOR ALL
INDUSTRIAL HEATING

Production • 65

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

This advertisement also appeared in:
NEW YORK TIMES
CLEVELAND PLAIN DEALER
CHICAGO DAILY NEWS
DETROIT FREE PRESS
WASHINGTON POST

You Expected to Read This NEXT YEAR!

Industry after industry is beating its promise as America's war production sets new world's records . . . Management, labor, W. P. B., Army, Navy, the Maritime Commission and other government departments are cooperating to make next year's headlines come true **THIS** year.

In World War I, the Kaiser feared American manpower. In World War II, Hitler is even more fearful of our rapid transition from peace to war production. . . . He has reason to be afraid.

Printing press factories are exceeding quotas on anti-aircraft gun parts.

Spark plug manufacturers are setting new speed records in machine gun production.

The heavy-transportation industry is making giant chassis for big guns at a faster rate than all the Axis powers combined.

In this industry, men who used to make locomotives and tractors are changing "Too Little and too Late" to read "Too Much and too Soon," from the enemy's viewpoint.

Starting just a few months ago, with a bale of blueprints and a knowledge of how to build such things as road-scrappers, power-shovels and trucks, the heavy-transportation industry is turning out mobile artillery that will shake the earth in more than a literal sense.

. . .

The story of how this industry joined the army carries a significance which should be understood and remembered.

The significance is that America has solved the problem of exchanging production techniques between specialized industries. This process went on unnoticed in peacetime. War gave it prominence.

★ ★ ★ ★ ★ ★ ★ ★

►When the bales of blueprints were first delivered, and the heavy-transportation industry started on its job of producing prime-movers and chassis for big guns in quantity, new production techniques were needed in a hurry.

►Here are some of the questions that arose:

"How do you weld such heavy sub-assemblies?"

"What welding fixtures will handle these parts so that our workmen can always weld down-hand?"

"How can we make these long, heavy welds and have sound metal from one end to the other?"

"What's the best technique for testing welded parts? Shall we x-ray, or use the magnaflux process?"

"What's the best way to support these welded assemblies for machining?"

That's just a few of the thousands of questions that arose in the minds of experienced men when they had to solve new problems.

They illustrate the fact that American production methods depend upon specialized techniques and machines.

Each man with such a problem knew that someone, somewhere, had solved his problem, or might solve it before he could work out his own answer.

Therefore he turned to the source of industrial information he had always used when he wanted to know what others were doing . . . his industrial magazine.

Ever since the Maginot Line was flanked, the Industrial Press of America has been helping rookie industries to become veterans in the battle of war production.

►It doesn't do this by exhortation or command, but by answering thousands of specific questions.

Just as newspapers keep their war correspondents at the front, Industrial Magazines keep their "war-production-correspondents" in the plants where weapons and equipment are made. McGraw-Hill editors are mobilized for war as literally as though they were firing weapons instead of helping to produce them. More than

90% of the time of McGraw-Hill's 153 editors and 725 engineer-correspondents is devoted either to visiting war-production plants (to study production techniques) or in writing "war stories" on how production problems were solved.

"Know-how" is the secret of the amazing records now being made by American Industry. And "know-how" comes from thousands of "little facts" like this:

Information on tool shapes for cutting the harder steels of war is vital literature to the engineer, designer or production man with the particular problem of cutting those steels confronting him.

The industrial editor does not work alone in giving vital information to men on the production line. In much the same way, manufacturers are war-converting their industrial advertising to show their readers how to use their products more effectively. For instance:

A business-paper advertisement showing how to make old taps and dies last longer has no glamour for anyone but the man who must rush production with an inadequate supply of new ones. To him it has enough "oomph" to be clipped and placed on his office wall.

To the casual observer, the Industrial Press is about as exciting as the rows of wires that stretch along every road and railway. . . . The simile is very apt. Both exist solely for the interchange of ideas. Both are typically American in the extent to which they have been developed and applied to the whole economy. . . . *This advertisement published by the McGraw-Hill Network of Industrial Communication.*

• • •

THE MCGRAW-HILL NETWORK

23 PUBLICATIONS WHICH HELP MORE THAN 1,000,000 EXECUTIVES, DESIGNERS AND PRODUCTION MEN TO EXCHANGE IDEAS ON WAR-PRODUCTION PROBLEMS

American Machinist • Aviation • Bus Transportation • Business Week • Chemical & Metallurgical Engineering • Coal Age • Construction Methods • Electrical Contracting • Electrical Merchandising • Electrical West • Electrical World • Electronics Engineering & Mining Journal • E. & M. J. Metal and Mineral Markets • Engineering News Record • Factory Management & Maintenance • Food Industries • Mill Supplies • Power • Product Engineering • Textile World • Transit Journal • Wholesaler's Salesman. Also publishers of thousands of books for technical and engineering schools and colleges, as well as for general business use.

**MCGRAW-HILL
PUBLISHING COMPANY, INC.**
330 WEST 42nd STREET, NEW YORK

GUARD HOUSE

for
Unruly

MERCURY



Tough Problem + Stainless Steel = Product Improvement

AN UNUSUAL PROBLEM confronted engineers designing the mercury check valves for automatic sprinkler systems. Impurities in the cast iron, from which parts of the check valves were made, would blend with the mercury used to start the sprinklers. That meant inadequate fire protection—and constant servicing of the installations, to keep the mercury "clean." Then, with Carpenter's help, they adopted *Stainless Steel* throughout—and their problem was solved "for keeps."

Climax to this story: By using Carpenter *Stainless Steel*, it

was possible to eliminate an external manifold and several fittings—thus giving the Sales Manager a more compact product to sell.

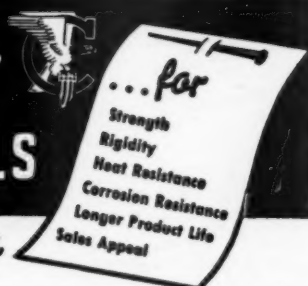
At Carpenter total war means "get it out faster" every hour of the day and night. But we are never too rushed to help you get the most from every pound of *Stainless Steel*. If your engineers need information on *Stainless Steel* types, or if fabricating assistance would help you, consider Carpenter as your G. H. Q. for ways to make wartime *Stainless* work harder.

THE CARPENTER STEEL COMPANY, READING, PA.

Carpenter

STAINLESS STEELS

BRANCHES AT Chicago, Cleveland, Detroit, Hartford, St. Louis, Indianapolis, New York, Philadelphia



wasteland to provide water in which to float the ships. And soon the first ship—a pilot job to be put together by slower means—will begin to take shape; it's scheduled for completion by September.

Despite the very preliminary stage in which this project now stands, the contractor, the Maritime Commission, and all New Orleans believe implicitly that the new shipyard will be completed on time, and that the ships will roll off the production line at the incredible rate which is promised. This confidence rests upon the ship production achievements already credited to Andrew Jackson Higgins, Sr., who pretty much owns—and runs—the outfit.

• **New Orleans Takes Notice**—Higgins is almost as mysterious and legendary a figure around New Orleans as is Henry J. Kaiser in San Francisco's Bay Region (BW—Mar. 1 '41, p. 28). Nebraska-born, in his mid-fifties, Higgins has had a varied career. He tried a dozen different occupations before he really hit his stride. He found that a few years back when he began to build small boats in the backyard of a garage on residential St. Charles St. Eventually, that operation expanded until it covered two city blocks. When war came, he was presently building his pet type of boats for the Allies. And when the U. S. military buying began in earnest, Higgins had both feet planted squarely in the market.

The new Higgins shipyard will employ an adaptation of the boat-building technique already perfected at the City Park Ave. plant and at another Higgins plant where slightly larger combat craft are being manufactured of steel. The cargo-ship production process will start not at the waterside, but on dry land more than a mile inland. There will be four parallel assembly tracks that stretch to the canal now being dug. Each line will be served by a succession of cranes capable of handling loads up to 150 tons.

• **How the Lines Will Work**—In shops and yards set at right angles to these tracks will be the subassembly departments. These will prepare the component parts and feed them to the main assembly lines. First, hull sections will be fabricated upside down. The section will be righted, set in place, and welded into the hull to the approximate height of the waterline.

By the time the hulk has achieved the proportions of a celery dish, it will have been moved by the cranes step by step the full mile from starting point to water and will slide into the canal. It will by then have acquired its engine and propeller, can thus move forward under its own power. Because at this stage it will still be light in weight, it will draw little water.

• **Ready for Test Runs**—The canal is just wide enough for the ship's beam and deep enough for its draft. Work-

men on adjacent scaffolding will apply outer parts while others labor inside the hull. (All told, 50,000 workmen will be needed; they are being hired daily in droves and sent to school to learn the specialized crafts of modern shipbuilding.) By the time the job is finished, the completed ship will have reached the deepwater Industrial Canal and will steam through it into the Mississippi for her first cargo and maiden voyage.

Paper Revolution

Deciduous trees are made available by semichemical process which has gained a war impetus that may be far-reaching.

Out of the last war came Kotex and Kleenex, incidental discoveries of a Neenah (Wis.) chemist seeking paper bandages. From the second conflict is emerging a newly popularized method of low-cost papermaking—a process that makes nearly every type of tree grist for the mill.

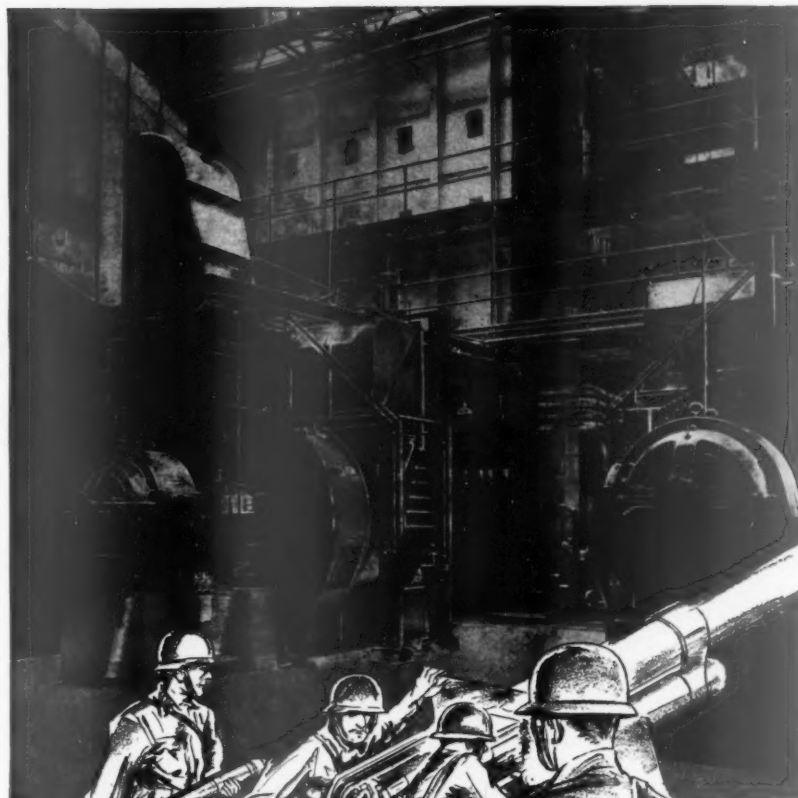
• **Tantalizing Prospect**—To a papermaker, dependent upon a few species of evergreens for his raw material, deciduous trees are as tantalizing as a savory meal just beyond reach. They are plentiful, close to his mill, economical to log. But their short fiber has limited their use largely to certain types of book, magazine, or other low-strength papers.

Consequently, the paper mill man damns such flourishing second-growth as poplar, willow, green ash, elm, cottonwood, bitter pecan, sweetgum, blackgum, and blackjack oak, trees which cover timberland the country over. And he sends his loggers faring ever farther from his front door to seek long-fibered species of spruce, balsam and hemlock.

• **A Sixth Process**—There are five accepted basic methods of pulping wood. According to the U. S. Department of Agriculture's Forest Products Laboratory in Madison, Wis., a dozen or more mills are now interested in a sixth process of papermaking developed by its researchers.

Ever since 1927, the Forest Products Laboratory has been experimenting with a "semichemical" process, to steer a middle course between the cooking process, which dissolves away half the wood, and the grinding process, which succeeds in retaining most of the wood constituents but greatly reduces the length of the fibers.

• **Used by Several Mills**—Eventually the laboratory technicians applied the semichemical process to deciduous hardwood trees and obtained results of great significance to the pulp and paper industry. Commercial development of the process as applied to hardwoods has seemed slow, but at least seven mills



Ready - FIRE!

Behind every gun, every shell, every plane, tank and warship, stand countless hours of production activity. ★ ★ ★ Before the command "FIRE!" can be given on the field or at sea—thousands of boiler horsepower must supply the energy to manufacture the raw and finished materials of war. ★ ★ ★

BUFFALO Mechanical Draft Fans are playing an important part in the generation of America's power—in large central stations and in industrial power plants all over the Nation.



BUFFALO FORGE COMPANY
458 BROADWAY BUFFALO, NEW YORK

Branch Engineering Offices in Principal Cities
CANADIAN BLOWER & FORGE CO., LTD., KITCHENER, ONT.





How Patapar fills a need in Hospitals

Although Patapar's biggest job is protecting foods, its aid is being sought more and more in other fields.

In hospitals, for instance, you'll find Patapar playing important roles. It is used for wrapping instruments and things that are to be sterilized in live steam. Patapar, after sterilization, is used in operations to protect fresh wound edges from contamination. It substitutes for oiled silk or rubber as a protective covering for wet dressings.



Nurses often use Patapar to make an ice pack. Strong and pliable when wet.

These hospital uses are eloquent of the unique qualities of Patapar. It can be soaked in water—or come in contact with grease or oils—without harm. It can be boiled, steamed, or frozen. It is sanitary. Has no odor. No taste.

BUSINESS EXECUTIVES:

Today the use of Patapar for defense—for protecting foods—and in medical fields—is temporarily taking our capacity output. Nevertheless, with an eye to the future, now is a good time to get in touch with us to consider what Patapar can do for you. In writing, be sure to give us an accurate idea of your problem.

PATAPAR

Vegetable Parchment

Paterson Parchment Paper Company
Bristol, Pennsylvania
West Coast Plant: 340 Bryant St., San Francisco
Branch Offices: New York, Chicago
Headquarters for Vegetable Parchment since 1885

are now making semichemical board or paper of one kind or another.

In its bare essentials, the semichemical method softens the chips by a light preliminary cooking. This is followed by a treatment in attrition mills, where rotating disks disintegrate the chips to a fibrous pulp without injury to the individual fibers. Pulp treated in this way has a high percentage of hemicellulose, which acts as a glue or binder for the short fibers, and yields a sheet with all the strength desired.

• **Difficulty Overcome**—In applying this process to the making of newsprint, the stumbling block in the early days of the experiments was the tinny, translucent type of paper which resulted. This trouble was overcome by adding groundwood, which gives bulk and opacity. The product can also be used for finer grades of paper by using a chlorination bleach, which doubles the strength of the pulp.

A very acceptable alpha cellulose, which looks and feels much like cotton, may be produced at an acceptable price to compete with the same product made from cotton linters. Importance of alpha cellulose is obvious to anyone who knows it is a basic raw material for making rayon, film, and explosives.

• **Greater Per-Tree Tonnage**—Another major advantage of the Forest Products Laboratory's semichemical process is that it yields a greater tonnage of paper per tree logged. Reason: Cooking processes lose half the weight of the wood, while the semichemical treatment transforms 75% of the weight of the trees into the finished sheet. With world-wide economic conditions tending toward a long-term pulp shortage (gossip says the Germans have ravaged the Scandinavian forests) the high-yield possibilities alone offer the incentive to shift paper mills to using this process.

Greatest immediate possibilities of the semichemical method are in the container board field, Forest Products Laboratory technicians believe.

• **Nation's Output**—It is estimated that the United States produced 17,280,000 tons of paper and paperboard in 1941:

	Thousands of tons
Paperboard	8,020
Wrapping	2,860
Book	2,020
Newsprint	1,058
Tissue	870
Building	853
Writing	735
Groundwood printing and specialties	602
Other paper	262
Total	17,280

Biggest advantage of the semichemical process, Forest Products Laboratory researchers believe, will come from saving on haulage—which today means tires—and in preserving the value of existing paper mills and paper-making communities by giving them many more years of raw materials.

NEW PRODUCTS

Ty-Tyte

A piece of tough paper with a riveted paper button, like the one on a string-type manila envelope, and 26 in. of stout cord constitute the Ty-Tyte, new product of Horder's, Inc., Jefferson & Quincy Sts., Chicago. It is designed specifically to replace rubber bands in



binding bundles of letters, cards, what-have-you. Wrap the cord around the bundle and twist the free end around the button; that's all.

Paint-Drying Recorder

Enamel, lacquer, paint, and varnish manufacturers will be forced to change their formulas as shortages bob up in their various pigments, oils, solvents, and other vehicles. Sometimes there will be resultant changes in "drying time," sometimes not.

To enable all manufacturers who produce or use such finishes to check "set to touch time," "tack free time," and "dry hard or print free time," accurately, Henry A. Gardner Laboratory, Inc., 4723 Elm St., Bethesda, Md., has developed the new Gardner Drying Time Recorder. It consists of a compact travelling table which moves horizontally by clockwork, clips to hold freshly painted tin strips, and floating gears (one to a strip) which make impressions on the coated surfaces as they slide by hour by hour until they dry completely. From the varied impressions on a strip, it is simple to calculate the elapsed time at which the various stages of drying take place.

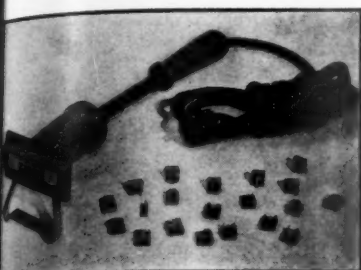
Tire-Brander

Many up-and-coming tire dealers and service stations are equipped to render a measure of theft protection by branding your car's tires with your initials. But if you operate a fleet of cars and

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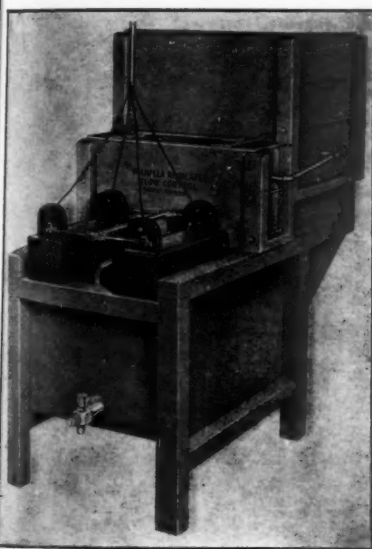
trucks you will probably find it more convenient to do the job yourself with your own electrically heated Master Branding Outfit, recent product of Master Mfg. Co., 1400 Fulton St., Chicago. The model illustrated is built for interchangeable $\frac{1}{2}$ -in. letters. A larger



model comes with a 3x5-in. heating plate, large enough for a special monogram, name plate, trade mark, or other identification symbol.

Automatic Chlorinator

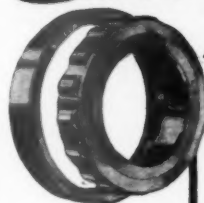
If the chlorine shortage is shutting off your supply of sodium hypochlorite (NaOCl , as in sodium-type Javelle water) for bleaching textiles, sterilizing food machinery, deodorizing toilet rooms, etc., you might look into a way to make your own with the Valhalla Chlorinator. It was developed during the chlorine shortage of World War I and has been redesigned for the present emergency



with a minimum of critical materials by Valhalla Co., 231 S. La Salle St., Chicago.

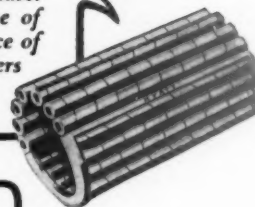
You pour a solution of common salt into the top tank. The brine flows automatically by gravity and in controlled quantities through simple d.c. electric cells. Result of the electrolysis is a sodium hypochlorite solution which runs into the bottom tank ready to be tapped for instant use.

Said 1942 to 1892



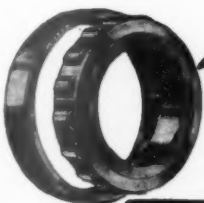
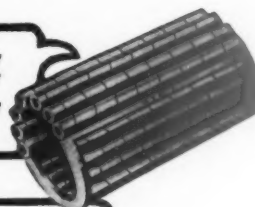
1942: Hi, Old Timer!

1892: A little more respect, please. I'm the daddy of our great line of Hyatt Bearings! With a tolerance of .010 in my wound roller diameters I was the Number One bearing of my day!



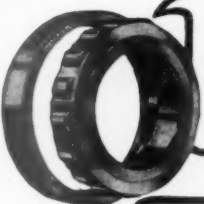
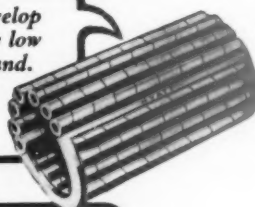
1942: Okay Dad, but with my modern design and close tolerance of one ten-thousandth of an inch, I'm the "fair-haired boy" today.

1892: Hmph! But how skinny you look! I had a width of 6-7 inches while your width is only 1-1/2 inches, young fellow.



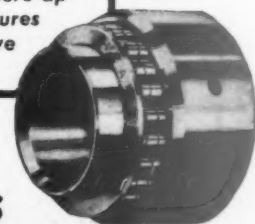
1942: I'm streamlined, old man, but what capacity I possess. And I'm a pretty slick article with my inner and outer race, and my ultra finish.

1892: I know... I've watched you develop over fifty years. Sure I was made of only low carbon steel and my finish wasn't even ground. In my day, we didn't have all the fancy trimmings—but we handled the tough jobs and handled them well!



1942: I appreciate all that, old fellow, but think how out-of-place you would be today with that crude half-spacer roller retainment as compared to my swanky bronze cage and microscopically finished solid rollers and races.

1892-1942: You're right, lad. But look me over now. Other than in roller design I've changed considerably during these years. And I'm still in there pitching with you where applications call for my lubrication features and shock load advantages. So—give credit where credit is due!



THE 50TH YEAR OF

HYATT ROLLER BEARINGS

HYATT BEARINGS DIVISION, GENERAL MOTORS CORPORATION, HARRISON, NEW JERSEY



PHOTOGRAPHIC ILLUSTRATIONS

THE LITTLE EXTRA THAT IS MORALE

Everybody is putting his back into winning this war... but some organizations have generated an extra will-to-win that consistently hangs up new production records.

How do they do it? Of course, we cannot give you a cut and dried formula, but we can show you how, in recent months, several of the very largest and most victory-conscious industrial organizations in the country have used Connecticut General group life insurance as a part of their successful morale-building programs. Write direct to Connecticut General Life Insurance Company, Hartford, Connecticut.

CONNECTICUT GENERAL GROUP LIFE INSURANCE

...A PART OF

The Protected Pay Envelope Plan



Your next engineering or business project...

WILL IT PAY?

The complete, three-fold method of analysis you need in order to find out most accurately is described in detail in this book.

Engineering Economic Analysis

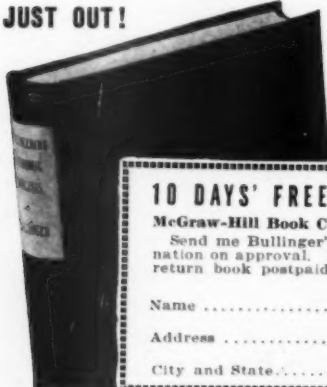
By C. E. Bullinger, Professor of Industrial Engineering, Pennsylvania State College. 359 pages, 6 x 9, 75 illustrations, \$3.50.

PRESENTS in considerable detail the methods of economic analysis of engineering projects for the purpose of determining whether or not they are financially feasible. Beginning with the "idea" stage, the book covers every step in the development of a project, showing the economic and intangible factors that must be dealt with, methods of finding costs, and how to summarize the financing problems involved. The use of charts as a means of analysis is stressed.

THIS NEW BOOK TELLS YOU how to analyze a projected venture from the standpoint of:—

- evaluating the economic factors and getting estimated costs
- separating and defining the intangible factors
- determining the financial problems involved and methods of handling them

JUST OUT!



10 DAYS' FREE EXAMINATION—SEND THIS COUPON

McGraw-Hill Book Co., Inc., 330 W. 42nd St., N. Y. C.

Send me Bullinger's Engineering Economic Analysis for 10 days' examination on approval. In 10 days I will send \$3.50, plus few cents postage, or return book postpaid. (Postage paid on cash orders.)

Name

Address Position

City and State Company BW-5-16-42

FINANCE

You're Trading?

Well, most people aren't. Newspapers find readers so little interested in markets that it's easy to cut financial space.

Every time the stock market flounders to a new low, financial editors of general-circulation newspapers wince and brace themselves for another budget cut. The lean years in Wall Street long ago cut financial advertising to the point where no newspaper's market section could pay for itself without reduction in size; most papers now regard it largely as a circulation feature. To an economy-minded business manager, a lagging market is likely to be the signal for lopping another column off the financial section.

• **Eliminating Luxuries**—The squeeze on financial space began about ten years ago when the country finally realized that the 1929 catastrophe had started something more than a garden variety bear market. Through the depression years newspapers cut out everything that looked like a luxury item; the financial page was one of the first places they practiced self-denial. One paper after another whittled down space, shortened tables, scrapped traditional features. The pressure eased a little at the end of the Thirties, but the war promptly brought a new squeeze.

Today the stately old financial section survives only in the largest of the metropolitan dailies, and even there it is allowed less than two-thirds the space it once had. Other papers have pruned news, eliminated comment, and compressed tables until they look almost like baseball box scores.

• **Some Typical Changes**—In New York, the Herald Tribune has shrunk its section from 55 columns to about 35; the Times has cut about the same proportion and has simplified its tables somewhat. Both now get tables from a wire service instead of making their own compilations.

The New York Post, which used to have one of the most elaborate sections of any afternoon paper in the country, has dropped all tables and concentrates news and comment into a single signed column.

The four general daily papers of San Francisco stopped printing New York bond quotations in 1937. Their sections now average about two pages an issue, instead of the five or six that ran during the big bull market.

The Milwaukee Journal cut all daily lists recently. The Denver Post has

combined the financial page with live-stock and other markets news. The Pittsburgh Press has dropped all bond tables.

• **Costly Speed Records**—One of the first depression casualties was the romantic system of setting price tables by hand to get afternoon papers on the street in the shortest possible time. In this system, a battery of stock tickers was set up beside the type galleys. As the market progressed a team of clerks called off changing quotations to printers standing across the forms; experienced crews could hurl type into blank spots and hustle away the pages for each edition—most importantly the “Wall Street Close”—almost as soon as the last quotation went on the tape.

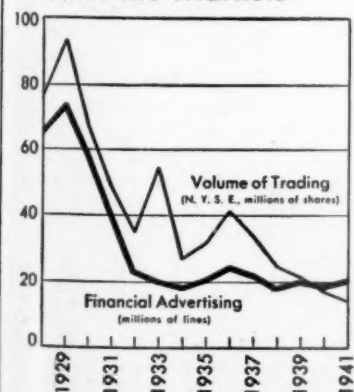
Papers took great pride in the speed and accuracy of their compilations, but in the dull trading of the Thirties most of them decided that hand-set tables were too expensive a luxury. Today the Sun is the only New York paper which hand-sets a full list of quotations.

• **Human Interest**—Some papers, such as the Baltimore Evening Sun, experimented with “humanizing” their financial sections, introducing color stories and replacing national statistics with features on local business. A few fell back on country weekly tactics, running columns of personal notes and humor. Almost all papers shifted emphasis from pure financial news to business and industry.

But no amount of glamorizing could make up for the ruthless contraction of financial advertising. Financial linage in 52 cities telescoped from 74,200,000 in 1929 to 20,500,000 in 1941 (chart, below). After 1932 the slump levelled off, but by then the total was down to the 20,000,000 level. A mild revival in 1936 carried it only to 25,000,000.

• **Lack of Public Interest**—At the same time, volume of trading on the New York Stock Exchange was falling from a monthly average of 93,800,000 shares

Financial “Ads” Fade With the Markets



Date: Media Records,
N. Y. Stock Exchange

© BUSINESS WEEK

BETTER WORKING DAYLIGHT?

Yes

...MILLER 50 FOOT CANDLER and 100 FOOT CANDLER will provide 50, 100 foot candles or higher of top quality working daylight, evenly distributed, in your plant. MILLER TROFFERS will duplicate that lighting performance in plant office and drafting room.

INCREASED WAR PRODUCTION?

Yes

...science says men work better, faster, more accurately as illumination increases. And field facts confirm that in all types of plants utilizing MILLER Continuous Fluorescent Lighting, production efficiency has actually improved. Figures on request.

PLUS...savings in critical metal! .. savings in power and man-hours!

Engineering studies show a saving of up to 47% of copper, steel and other critical metal may be obtained when the MILLER Continuous Wireway Fluorescent Lighting System is employed. These studies carefully took into account all necessary items for the complete lighting job—power plant, distribution, controls, wire, supports, etc.

Then, too, it is a fact that the MILLER Fluorescent System delivers greater light output per kilowatt . . . so vitally important today in Uncle Sam's power conservation program, to say nothing of your pocketbook.

Finally, because its continuous wireway contains all necessary operating auxiliaries the MILLER System can be installed economically (30 to 50 per cent savings here) and fast, complete row by row . . . thus saving precious man-hours for actual production.

War production one of your worries? Conservation of war materials one of your concerns? Then write today for further information. (Representatives in principal cities.)

MILLER

50 FOOT CANDLER
100 FOOT CANDLER
MILLER TROFFERS
Continuous Wireway Fluorescent Lighting Systems

THE MILLER COMPANY
MERIDEN, CONN.
Pioneers in Good Lighting Since 1904
• MILLER offers a complete line of filament and fluorescent lighting equipment.

HALLOWELL

SHOP EQUIPMENT

Is a real aid to conversion, whether it be a department or a plant.



Fig. 928
Pat's and Pat's
Pend'g.
Drawer is extra.

Over 1300 "Hallowell" Work-Bench combinations available to provide the best arrangement for any Production, Assembly or Inspection Operation. Can be joined end-to-end to make a continuous bench.

Prices are in line — so are deliveries. Send for Catalog.

STANDARD PRESSED STEEL CO.
JENKINTOWN, PENNA., BOX 598



YOU GET THE GOOD THINGS FIRST FROM CHRYSLER CORPORATION

DIVIDEND ON COMMON STOCK

The directors of Chrysler Corporation have declared a dividend of one dollar (\$1.00) per share on the outstanding common stock, payable June 13, 1942, to stockholders of record at the close of business May 15, 1942.

B. E. HUTCHINSON
Chairman, Finance Committee

HAMMER'S MODERN SUCCESSOR



THE HANSCO TACKER

PUT your tack-driving on a modern, accident-proof, waste-proof basis. Use the HANSCO T-1 One-Hand Tacker. First device of its kind to drive tacks! Drives into hard wood, thru thin metal or tin. Does a wide variety of tacking and fastening jobs—wherever glues or tacks are used. Drives Hansen T-head Tacks in four lengths, 3/16" to 1/2". Holds strip of 100 T-head Tacks. Drives fast as you grip. Investigate!

A. L. HANSEN MFG CO. CHICAGO, ILL.

The First Quarter Roundup 1942 compared with 1941

PRODUCTION	%	TRADE	%	PRICES	%
Steel	+ 4	Check Transactions.....	+14	Wholesale Prices.....	+20
Automobiles:		New York City.....	+ 6	Farm Products	+43
Passenger Cars	-83	140 Other Cities.....	+19	Food Products	+28
Commercial Cars	- 6	Life Insurance Sales	+25	Hides & Leather	+13
Construction	+29	Carloadings	+ 8	Textiles	+24
Residential	+30	Grain	+25	Building Materials	+11
Non-Residential	+28	Livestock	+ 7	Chemicals	+22
Pub. Wks. & Util.....	+29	Coal & Coke.....	+ 2	Metals	+ 6
Lumber	- 3	Forest Products	+16	Raw Materials	+30
Cement	+28	Ore	+12	Semi-Manufactures	+12
Electric Power	+14	L.C.L.	- 4	Finished Products	+16
Soft Coal	+ 4	Miscellaneous	+15	Construction Costs	+ 7
Hard Coal	+ 1	Retail Trade	+ 8	Dept. Store Prices.....	+18
Petroleum	+10	Department Stores.....	+28	Cost of Living.....	+12
Oil Wells Drilled	-12	Variety Stores	+20	Food	+20
Textile Consumption:		Rural Sales	+34	Clothing	+18
Cotton	+13	Paint & Varnish Sales.....	+29	Rent	+ 3
Wool	+ 2	Oil Burner Shipments	+ 2	Fuel & Light.....	+ 4
Rayon	+18	U. S. Foreign Trade:		Housefurnishings	+19
Cigarettes	+15	Imports	+ 7	Miscellaneous	+ 7
Cigars	+13	Exports	+59	Stock Prices	-15
Factory Employment.....	+13	Farm Income	+43	Bond Prices	+ 1
Factory Payrolls.....	+41	National Income	+23	Dividends Paid	- 1

Business Week's Index of Business Activity + 16%

in 1929 to 14,200,000 last year. Faced with figures like that, it was hard for a financial editor to argue that the public was enough interested in securities markets to demand complete market information. Most papers are inclined, in fact, to let specialized papers like the Wall Street Journal and the Chicago Journal of Commerce print the full and detailed record of the markets.

Papers discovered by experiment that pruning the finance section brought maximum space saving with minimum customer complaint. Often competitive papers arranged to cut the same features simultaneously to avoid putting one at a disadvantage.

• **Some Restorations**—Sometimes editors' pruning went too far, and deleted items had to be restored. Recently the New York Times tried to drop its weekly summary tables and encountered unexpectedly belligerent opposition. The table was restored after a brief period, and the Herald Tribune which had followed the Times' lead, was forced to back water, too.

Even before the war began, depression economies had left the financial section in emaciated shape. Now the squeeze has begun again. Rising costs of paper and printing, increased space devoted to war news, emergency expenses for special correspondents and news services all dig into the budget. Many business stories now carry a Washington dateline and run front page. Even though public interest in business

news is increasing, there is no tendency to expand the financial section correspondingly.

• **Hope for Future**—Editors agree pretty unanimously on a gloomy prediction for the immediate future, but most of them are cheerful about eventual developments. Priorities and rationing, they say, are stimulating interest in business news. Today a man's newspaper tells him what his chances are of getting a new car or another pound of sugar. By the time the war is over, maybe he will have the habit of watching the papers for business news that affects him.

Moreover, most editors expect the stock market will eventually pull out of its dreary slump. When it does, they say, it will finance the biggest boom in history, and if that happens the financial page will come back stronger than ever.

All that, however, is in the distant future. For the present, the financial editor watches the lagging market and grits his teeth.

DEVORE PAINTS

Notice of Dividends

A quarterly dividend of 1 3/4% (\$1.25) per share on the outstanding 5% Cumulative Preferred Stock and a regular quarterly dividend of 25 cents per share on the Class A and Class B Common Stocks of the Company have been declared payable June 1, 1942, to the respective stockholders of record at the close of business May 20, 1942.

DEVORE & RAYNOLDS COMPANY, INC.
New York

COMMODITIES

Cotton in Cotton

Shortage of imported jute for burlap bagging revives drive to cover American bales with cloth made from domestic fiber.

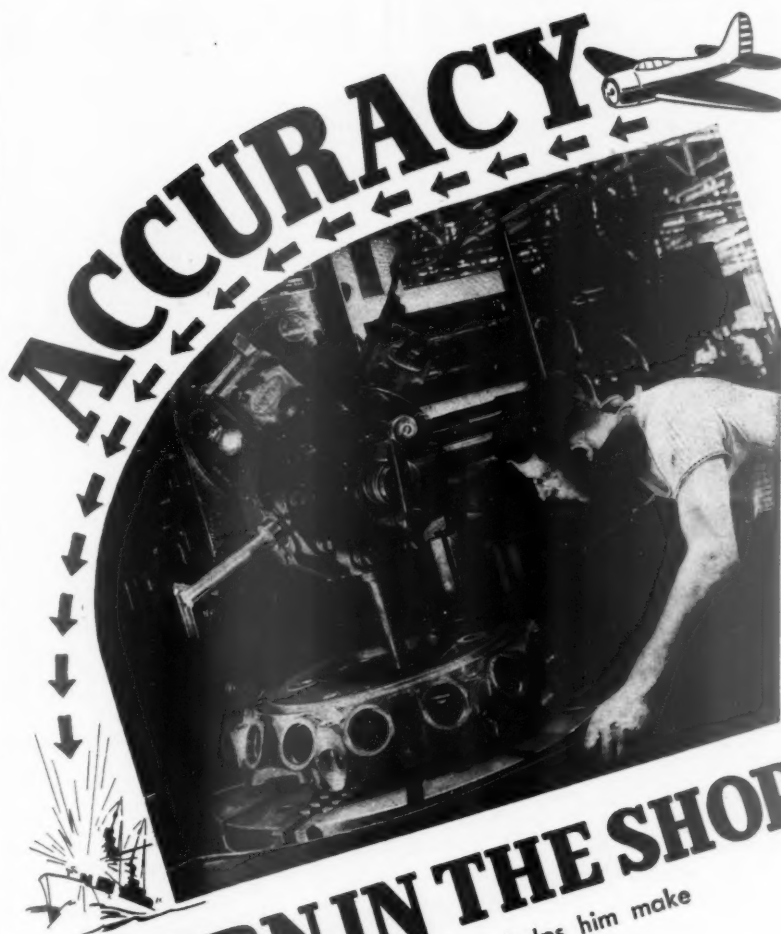
Now is the time, according to the cotton industry, to start wrapping cotton crops in cotton instead of burlap, to start trading in cotton bales on a net instead of a gross weight basis, and to establish a grading system which will preclude excessive sampling that often rips the bale coverings to pieces and sometimes loses enough cotton out of the bales to pay the rent on brokers' sampling rooms.

• **To Cover the Crop**—The need for bale covering, or bagging, is clear. With a ten- to twelve-million bale cotton crop coming up this autumn, there is not enough covering material in sight to bale it. Normally a good share of the cotton crop is baled in jute bagging woven from used burlap and new jute butts, in which the used material sometimes accounts for seven-eighths of the product. If manufacturers have on hand a sufficient supply of new jute, the jute baggers may be able to furnish their usual share of "new" bagging this year, since high consumption of cotton is bringing out an abnormal quantity of used bagging.

However, as much as 20% of the crop is customarily covered with new jute bagging brought in directly from India, and another 20% covered with sugar cloth bagging made from used burlap bags here. With imports from India highly doubtful, shipments of burlap and of jute to be converted into burlap from Calcutta may be considered out. And with burlap in this country just about jewel-rare there is every likelihood that there will be no such thing as a used burlap bag; they will be either burlap bags in use, or simply valuable rags.

• **Looms a Problem**—Cotton itself is indicated to carry the ball on its own covering, and the Department of Agriculture has acknowledged the bale-covering position by reviving the cotton bagging effort that petered out a couple of years ago. Thus far Lane Mills of New Orleans, former big producer of cotton bagging patterns, has undertaken to weave 2,000,000 bale covers and a few other mills have contracted for further quantities, but most textile mills are so laden with military and commercial cloth business that there is simply no loom room.

Nevertheless, the job appears to be



IS BORN IN THE SHOP

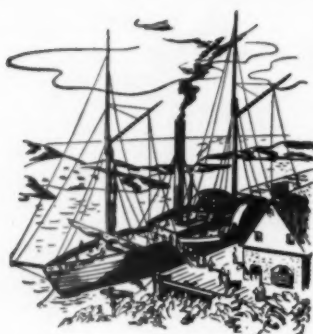
Ask the pilot whether a reliable plane helps him make a "hit."

We have the world's best planes because we have the best designing brains and the machines to make their designs come alive in quantities the world never dreamed of before.

Wherever American planes and engines are being built, you will find Bullard Vertical Turret Lathes. They have the power, the speed, the sustained accuracy to build the vital parts in the tremendous quantities our fighting forces need—and they will be just as valuable in winning the peacetime battles to come later.

THE BULLARD COMPANY
BRIDGEPORT, CONNECTICUT

BULLARD



"WALK-IN-THE-WATER"

DOCKS AT CLEVELAND

1818

• Cleveland became a Lake Port 124 years ago, on the day Lake Erie's first steamboat, "Walk-in-the-Water", arrived from Buffalo.

Twenty-seven years later, on May 17th, The National City Bank opened its doors to do business with Cleveland's early industrial concerns. We have grown with these industries for 97 years.

Today..besides her ideal geographical location..Cleveland has the tools, the man-power, the transportation and the sound financial institutions that make her capable of handling the vital war production contracts given to her manufacturers.

THE NATIONAL CITY BANK OF CLEVELAND

EUCLID AT EAST SIXTH
&
TERMINAL TOWER BLDG.



MEMBER FEDERAL DEPOSIT
INSURANCE CORPORATION



THE MARKETS

Commercial banks are waiting hopefully while the Army and Navy organize their new systems of guaranteed loans to war contractors. For seven successive weeks banks have watched commercial and agricultural loans—their big money-makers—fall away from the Mar. 18 peak of \$7,035,000,000. They are counting on the new government policy to put brakes on the slump by making bank borrowers out of contractors who formerly went direct to Washington when they needed cash.

• **Room for Competition**—Best news the banks have had lately was the decision of the Army and Navy to charge 2½% interest on advances to contractors (with certain exceptions). Object was to make the terms on advances consistent with the policy on guaranteed loans, and the result is to put banks in a position to compete, which they couldn't do against interest-free government money.

Banks hope that a lot of their old customers will come back to the private financing fold now that government advances carry a price tag. As long as the Army and Navy were willing to advance 30% of the contract price without charge, banks were shut out.

• **Big Volume Foreseen**—More important than the return of old customers, however, is the prospect of doing a big new business in guaranteed loans. On Mar. 26, the Army, Navy, and Maritime Commission were empowered by executive order to underwrite loans made by banks to their contractors (BW—Apr. 18 '42, p. 77). During the past month they have been setting up the machinery, and now they are just beginning to hit their stride. Some bankers expect the volume of guaranteed loans to reach as much as \$5,000,000,000 before the year-end.

All of this will be handled through the commercial banks with the Army and Navy assuming as much of the risk as the banks ask.

It will take a lot of new business, however, to offset the decline in the banks' ordinary loan business. Commercial loans of weekly reporting Federal Reserve member banks in 101 cities have fallen almost \$400,000,000 in the last seven weeks, and now stand at about the level of last December. Many civilian industries are cutting down operations and paying off their debts.

• **More Government Bonds**—All this means that government securities will make up an increasing proportion of bank portfolios in the next year or so. Investments in governments are going up steadily; it isn't likely that loans could jump enough to keep the ratio constant.

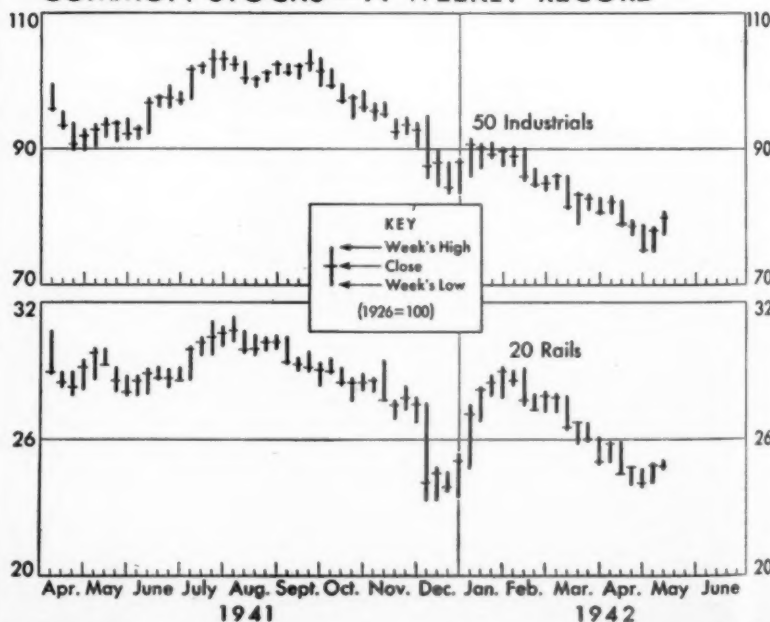
As a sidelight on this portfolio problem, the Treasury's recent experiment with a 2½% "tap" issue gives a sounding on the reservoir of institutional credit outside the banks. The books closed last Thursday, with sales totaling between \$800,000,000 and \$1,000,000,000.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial . . .	79.9	78.2	78.9	93.7
Railroad	24.8	24.9	24.5	29.3
Utility	29.7	29.8	29.0	44.9
Bonds				
Industrial . . .	107.5	106.8	107.2	102.5
Railroad	87.7	88.4	87.7	90.2
Utility	102.0	102.4	102.5	106.5
U. S. Govt. . .	110.3	110.6	110.8	110.0

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS — A WEEKLY RECORD



Data: Standard & Poor's Corp.

© BUSINESS WEEK

up to cotton. Head of the Cotton Textile Institute, Claudius T. Murchison, predicts a limited amount of jute bagging for 1942-43, still less and possibly none at all for 1943-44. On this basis, Murchison considers the changeover to cotton covering mandatory and suggests that the industry will have to make the switch in no less than two years.

• **Setting Standards**—About two-thirds of the country's mills have already promised the government that they will allow seven pounds extra weight in buying bales covered with cotton rather than jute. What the cotton bagging proponents want, however, is a legal rather than volunteer acknowledgment of the extra cotton value in a cotton-covered bale.

Hence the bagging crisis may this time get the latest revision of the durable Fulmer bill through Congress. The Fulmer bill, H. R. 6656, does not make cotton bagging mandatory, but directs the Secretary of Agriculture to establish standards for bale covering materials and set tare allowances, which suggests no less than a fair shake for cotton bagging, at a minimum.

No good system has been announced yet for eliminating free-lance sampling of bales and at the same time satisfying cotton buyers who feel that cotton grades lie exclusively in their own eyes and finger tips. War stresses, however, plus the fact that patches to cover sample tears are going to be increasingly scarce, may bring the industry, including buyers, around to some sort of certificated grades.

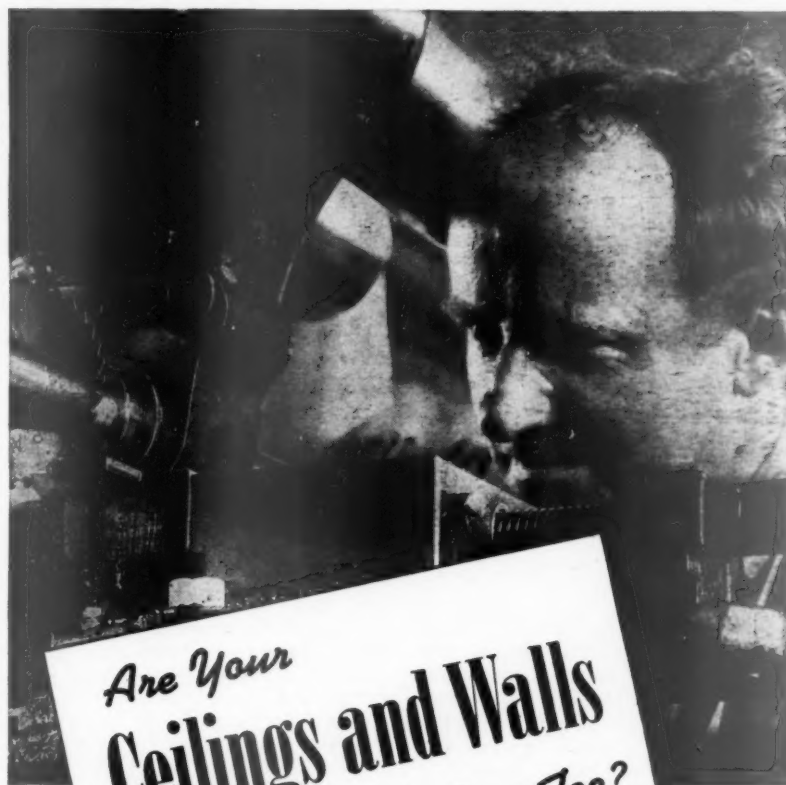
Doling Out Cocoa

WPB's 30% reduction in grinding of beans means emptier cups, even though stocks still appear reasonably comfortable.

War pressure on the teacup is mounting. With tea distribution cut 50%, coffee 25%, the War Production Board this week moved on to cocoa by ordering a 30% reduction in the grinding of cocoa beans, beginning immediately and extending for a three month period. Although the curtailment technique is different this time, restrictions having been placed on grinders rather than on distributors as in coffee and tea, the effect on consumers in the long run will certainly prove the same—emptier teacups.

• **Warehouse Stocks Dip**—Cocoa has for several months been a natural for some form of control. More than a month ago stocks of cocoa in warehouses licensed by the New York Cocoa Exchange dipped below 1,000,000 bags for the first time since early 1939. Today the licensed warehouse stock is down to

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You've spent a lot of time figuring out new ways and means to get more production and get it quicker. But there is one important aid to better work you may have overlooked . . . clean WHITE walls and ceilings.

IS this a comparatively minor item you can skip right now? *Certainly not.* Ask your own maintenance man, plant superintendent, or production manager. Ask any lighting expert. They'll tell you that dark, dingy walls and ceilings can absorb up to 60% of the light from the best lighting system, actually cutting production 10% or more.

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A trained Barreled Sunlight Representative can show you how. Backed by our 40 years of experience in making white paint for industry, he is fully equipped to help your maintenance man work out a practical painting program that will step up your output because it improves working conditions. Write U. S. Gutta Percha Paint Co., 11-E Dudley St., Providence, R. I.

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845,000 bags, about half the total of a year ago.

Thus far in 1942, Africa, normal supplier of 60% of American cocoa, has sent no cocoa whatsoever to warehouses here, and Brazil, next largest source, has landed less than 10% of the quantity shipped last year. All imports, according to WPB, totaled only 34% of consumption in the first three months of 1942.

● Holdings Held "Adequate"—WPB, in ordering the reduction, described total stocks of cocoa beans held in all warehouses and in manufacturers' inventories as "adequate," since on Apr. 10 these holdings amounted to 452,000,000 lb. compared with consumption last year of 523,000,000 lb. The cocoa trade, nevertheless, is not too happy.

Cocoa imports for some years have been mounting. Before 1941, annual supplies were frequently running ahead of consumption; hence the stock of beans and finished products in manufacturers' hands ballooned, which is why it looks reasonably comfortable even now. However, the quantity of cocoa beans now in warehouses is little more than a quarter of the total supply of cocoa in both raw and processed form, and unless imports pick up, which is unlikely at present, available cocoa after the 30% reduction has become effective will only stretch out to cover about nine months' needs.

● Chocolate Bar Hit—Worst casualty will be the chocolate bar, but the crack-down here will not be as bad as it might, since today's army field rations do not include the chocolate bar as they did in the last war. Moreover, relatively high stocks of finished cocoa products will give consumers the benefit of some lag before the cut reaches to the retail end.

Eventually soda fountains will have 30% less chocolate syrup, candy-makers 30% less chocolate candy, and so on. And another choice will be added to the beverage list. Will you have half a cup of tea, three-quarters of a cup of coffee, or 70% of a cup of cocoa?

AGRICULTURE'S LAGGARDS

Commentary on 1941 agricultural prosperity: Out of 52 principal 1941 crops, calculated on the basis of their crop years, only four failed to return a total sales value greater than during the 1940 season. These four Boris Karloffs of the farm field were maple sugar, maple sirup, alfalfa seed, and lemons. Crops were smaller in all four, but except for an approximately static price on maple sugar, prices received by farmers were higher.

New England thrift note: On practically every crop, the value of the product consumed on the farm household was higher, but not maple sirup; with high market prices, the Yankee apparently sold sirup and ate his pancakes nude.

THE TRADING POST

"Bed Sheets an' Fishin' Poles"

One of the penalties we pay for the vastness and complexity of the economy under which we live is the difficulty of relating its operations to the average man's every-day life. If we wish to talk about the affairs of the average man we must use average terms but these, of themselves, mean little to the average man.

If we would talk convincingly to any individual about his particular interests we must talk about the specific things that compose those interests, not about abstractions that often mean little or nothing to him. To the average man, his job is a job, not a market for his services. To him, a raise is a raise, not an increased share of the national income. His money in the bank is just that, not the national savings fund.

One reason so many people are intrigued by phony economic notions is that the left-wingers and rabble-rousers talk nonsense to them in words they can understand, while others talk good sense in words they can't understand. I concede that it is easier to win acceptance for appetizing nonsense than for unpalatable truth—as the war now is driving home to us—but truth and sense start with a double handicap when they are clothed in words of vague meaning. There's much room for improvement in this vital matter of getting good sense across to the people in connection with the great issues they will have to solve during the tense days that lie ahead.

I was reminded of all this the other day when I heard about an old colored educator in Texas who has been doing a good job of interpreting sound economics to his people.

Not so long ago an agricultural expert went down from Washington to lecture the old gentleman's flock on the feeding of live-stock. He waxed profound and exhaustive but, unfortunately, most of his instruction went over the heads of his earnest but simple listeners. When he had finished it looked as though his labors had been in vain, until the old Negro chairman rose to close the session.

"What dis gen'lman is a tellin' yo' all," he summarized, "is dat yo' gotta put in plenty time at de front end wid de feed-bucket, ef yo' expects to spend much time at de hin' end wid de milk-bucket."

It was the same old man who once attended a rather heavy discussion on economics brought to his institution by a group of white educators. There were charts galore, enlarged on a canvas screen and elucidated in detail with the aid of long pointers.

The old gentleman listened intently

and when he was asked to participate in the ensuing discussion, he remarked:

"All dis is mos' interestin' an' I reckon it's mighty impo'tant to de white folks dat wants to git on. But wid my people it's diff'rent. When dey wants to know whether dey's making out good or not, dey don't need no bed-sheets an' fishin' poles an' chart-pitchers—dey jest has to rub dere bellies, dat's all."

And unless we are able to get the basic facts that govern our complicated economy into terms that will make truth just as vivid as that to the rank and file of the American people who must make the decisions, we shall be in for some stormy times. And if we are unable to meet that test, no one knows how long the people may be able to retain that power of decision.

Report to the Home Town

During the past few years, many companies have come to recognize the legitimate interest in their operations by many groups outside their management and ownership.

This recognition has taken the form of annual reports arranged to be intelligible to others than bankers and accountants. Through them many stockholders have been able to get a better idea of what it's all about.

Some companies have taken pains to prepare annual reports for their employees, in which essential data concerning the business are put so as to make its operations and its obligations clear to everyone on its payrolls. All of which has been all to the good.

Now R. G. LeTourneau, Inc. of Peoria recognizes the interest of its fellow townsmen. It runs a full-page newspaper advertisement, addressing "To the Citizens of Peoria An Annual Report from R. G. LeTourneau, Inc."

The report uses words, figures, charts, and pictures to tell about the company's products and operations, to show how its earth-moving equipment is used for both civil and war construction, to tell something of its employees and their training, to show how the company and its people measure up to the responsibilities of citizenship.

"In conclusion," the Report acknowledges its limited scope, and makes it convenient for anyone to ask for the complete 1941 LeTourneau Report.

Altogether this report to the home town is a constructive recognition of the third group that goes to make up the specific "public" of any business, the three being, of course, its own employees, the people with whom it does business as buyer or seller, its home-town neighbors.

W.C.



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THE TREND

THE EXCESS-PROFITS PROBLEM

When the House Ways and Means Committee recently proposed a 94% excess-profits tax, American editorial writers immediately got busy: The tax is far too high; it will take the profit incentive out of business, destroy initiative, and stimulate inefficiency. One newspaper went so far as to suggest that for every dollar that management "spent wastefully hiring needless men or retaining inefficient and outmoded methods of production, it would be wasting only 6% of its own money." And it concluded that the result might well be "increasing slackness in industrial methods."

• Much can be said against the House proposal, but not that. It is hardly realistic to assume that corporations—just because of a high excess-profits tax—would deliberately waste resources or man hours. After all, corporations are composed of men; and men are creatures of their habits. It is not logical to assume that the purchasing agent of a big company will change overnight from a shrewd bargainer to a devil-may-care buyer, just because of a rise in the EPT.

Nor will the hard-driving foreman of an industrial plant suddenly become lax because there aren't the same profits for the owners as there used to be. Nor will research men and engineers instantaneously repudiate all of their past training and cease their search for new methods and new processes. Nor will top executives, who have spent years gathering together a tight, efficient organization, desert their calling and become mismanagers.

It has been suggested that, instead of the committee's plan, Congress adopt the British scheme—a 100% excess-profits tax now, followed by a 20% rebate after the war. Business men, however, had better think twice about this proposal. In the first place, no date is set for the British refund; in the second place, the rebate, when it is paid, is to be regarded as ordinary corporate income, and hence will be subject to corporation taxes. So you don't get 20% of the excess-profits tax back after all.

• Right now, the British normal tax on corporations is 50% and that rate is likely to outlast the war. If it prevails when the British Treasury decides to release the impounded EPT, then the refund would amount to only half of its face value—10% instead of 20%. And on that basis, the effective EPT rate would be 90%—not so very far off from the Committee's proposal of 94%. Thus, many a corporation executive might well wonder, under such a proposal, whether 6% in hand now might not be better than 20% on the cuff. Especially if that 20% is to be subject to ordinary income taxes, as in Britain, or to future acts of Congress.

Moreover, the business man should consider how labor leaders will view a tax-rebate plan. Are they not apt to think of it as a subterfuge, as a scheme to pay less taxes,

while seeming to pay more? And that goes despite persuasive arguments in favor of the plan—that the refunds will be used to buy new plant and equipment after the war; that they will create employment for returning soldiers; that they will help reconversion from wartime production to peacetime production.

• From the longer-term economic standpoint, it is far more important to the business man to have wage rates batted down than to have a tax refund at some future date after the war. After all, the refund will be only a momentary windfall. But if wage rates continue to rise, there will be a more or less permanent increased charge against earnings.

However, it is doubtful whether the President will be able to get labor leaders to accept a general freeze on wage rates unless profits are also frozen. May it not be better as a matter of dollar-and-cents realism to have a hard-and-fast excess-profits tax than a free-and-easy wage policy? That is a basic question for the corporation executive to consider.

On that basis, a profits freeze conceivably might be looked upon as an investment in lower wages after the war. Further, it might be the start for effective implementation of the President's all-out price-control policy. For price control depends on three basic economic factors—freezing wages, prices, and profits. But you cannot well control one without the other. It's an economic tripod—so to speak. And for stability all legs must rest on a solid political foundation.

• One thing we can learn from England. There, a corporation is permitted to select as its profits ceiling the highest of the three pre-war years, 1936 to 1938. We might adopt a similar plan, and go further. We might choose the highest one of the three pre-war years, 1939–1941. That would mean that the fairly satisfactory year of 1941 would be the ceiling for most companies. But instead of a 20% rebate, we might tax all earnings above that selected year 100%.

That would be a real start on the problem of prices, wages, and profits. Each corporation would have a definite limit on its earnings. And union leaders could not, thereafter, argue that corporations were making huge profits out of war orders. For profit levels would be set; and all profits above those levels would be taxed—100%—with no post-war rebate. Then we would have a ceiling that is a ceiling.

But profits control is not enough. Along with it, we need effective wage control and price control, if we are to control wartime economic gains and implement the price freeze. Tripods can't stand on one leg.

The Editors of Business Week

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